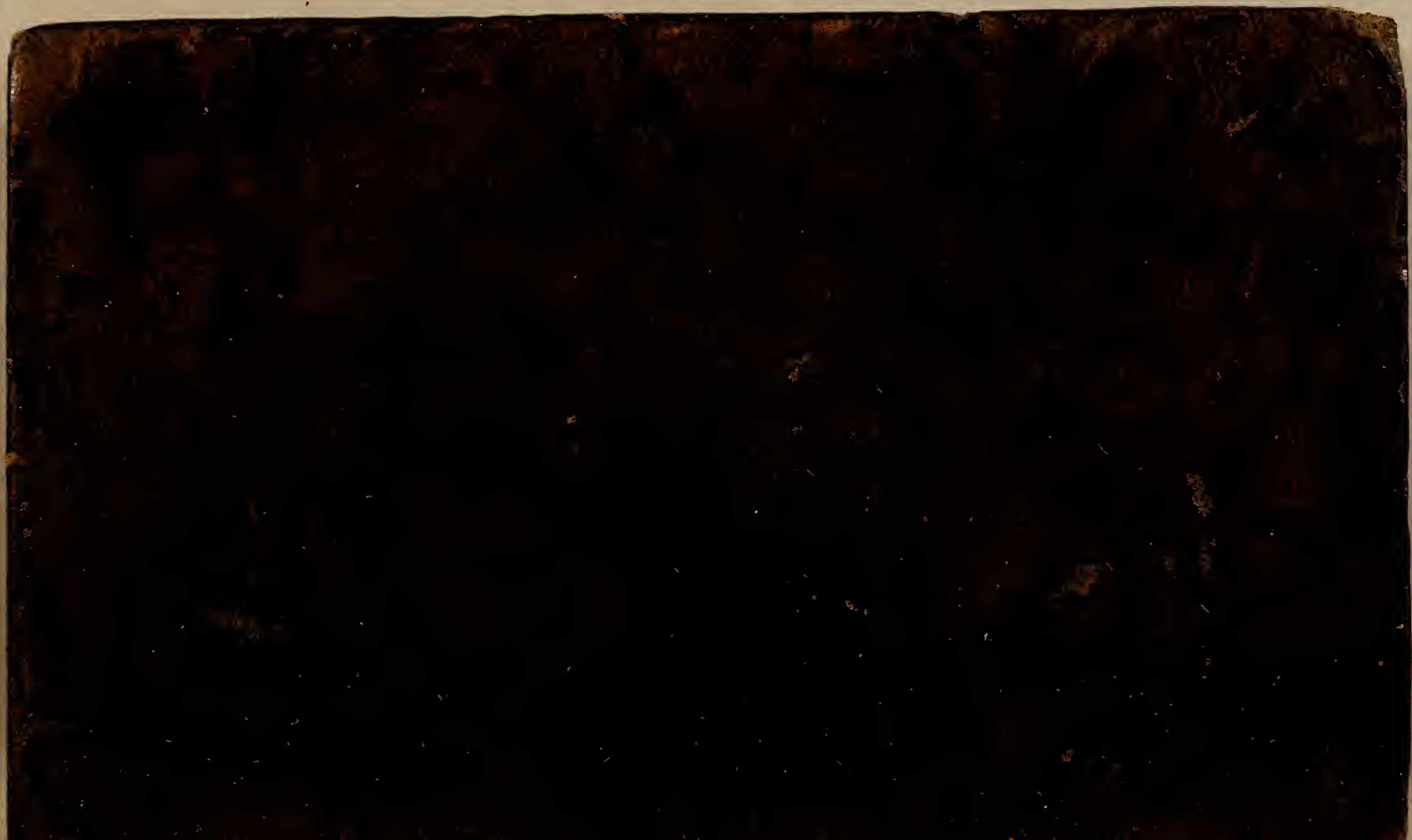

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# OUTLINES

OF AN

# HISTORICAL VIEW

OF THE

# *PROGRESS OF THE HUMAN MIND.*

A. 29.
Robert Carr

# OUTLINES

OF AN

# HISTORICAL VIEW

OF THE

# *PROGRESS OF THE HUMAN MIND:*

BEING A POSTHUMOUS WORK OF THE LATE

M. DE CONDORCET.

.....

[*TRANSLATED FROM THE FRENCH.*]

.....

*PHILADELPHIA:*

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# *PREFACE.*

CONDORCET, proſcribed by a ſanguinary faction, formed the idea of addreſſing to his fellow-citizens a ſummary of his principles, and of his conduct in public affairs. He ſet down a few lines in execution of this project: but when he recollected, as he was obliged to do, thirty years of labour directed to the public ſervice, and the multitude of fugitive pieces in which, ſince the revolution, he had uniformly attacked every inſtitution inimical to liberty, he rejected the idea of a uſeleſs juſtification. Free as he was from the dominion of the paſſions, he could not conſent to ſtain the purity of his mind by recollecting his perſecutors; perpetually and ſublimely inattentive to himſelf, he determined to conſecrate the ſhort ſpace that remained between him and death to a work of general and permanent utility. That work is the performance now given to the world. It has relation to a number of others, in which the rights of men had previouſly been diſcuſſed and eſtabliſhed; in which ſuperſtition had received its laſt and fatal blow; in which the methods of the mathematical ſciences, applied to new objects, have opened new avenues to the moral and political ſciences; in which the genuine principles of ſocial happineſs have received a developement, and a kind of demonſtration, unknown before; laſtly, in

which we every where perceive marks of that profound morality, which baniſhes even the very frailties of ſelf-love—of thoſe pure and incorruptible virtues within the influence of which it is impoſſible to live without feeling a religious veneration.

May this deplorable inſtance of the moſt extraordinary talents loſt to his country—to the cauſe of liberty—to the progreſs of ſcience, and its beneficial application to the wants of civilized man, excite a bitterneſs of regret that ſhall prove advantageous to the public welfare! May this death, which will in no ſmall degree contribute, in the pages of hiſtory, to characteriſe the era in which it has taken place, inſpire a firm and dauntleſs attachment to the rights of which it was a violation! Such is the only homage worthy the ſage, who, the fatal ſword ſuſpended over his head, could meditate in peace the melioration and happineſs of his fellow-creatures; ſuch the only conſolation thoſe can experience who have been the objects of his affection, and have known all the extent of his virtue.

# OUTLINES

OF AN

# HISTORICAL VIEW, &c.

## INTRODUCTION.

MAN is born with the faculty of receiving ſenſations. In thoſe which he receives, he is capable of perceiving and of diſtinguiſhing the ſimple ſenſations of which they are compoſed. He can retain, recogniſe, combine them. He can preſerve or recal them to his memory; he can compare their different combinations; he can aſcertain what they poſſeſs in common, and what characteriſes each; laſtly, he can affix ſigns to all theſe objects, the better to know them, and the more eaſily to form from them new combinations.

This faculty is developed in him by the action of external objects, that is, by the preſence of certain complex ſenſations, the conſtancy of which, whether in their identical whole, or in the laws of their change, is independent of himſelf. It is alſo exerciſed by communication with other ſimilarly organiſed individuals, and by all the artificial means which, from the firſt developement of this faculty, men have ſucceeded in inventing.

Senſations are accompanied with pleaſure or pain, and man has the further faculty of converting theſe momentary impreſſions into durable ſentiments of a correſponding nature, and of experiencing theſe ſentiments either at the ſight or recollection of the pleaſure or pain of beings ſenſitive like himſelf. And from this faculty, united with that of forming and combining ideas, ariſe, between him and his fellow creatures, the ties of intereſt and duty, to which nature has affixed the moſt exquiſite portion of our felicity, and the moſt poignant of our ſufferings.

Were we to confine our obſervations to an enquiry into the general facts and unvarying laws which the developement of theſe faculties preſents to us, in what is common to the different individuals of the human ſpecies, our enquiry would bear the name of metaphyſics.

But if we conſider this developement in its reſults, relative to the maſs of individuals co-exiſting at the ſame time on a given ſpace, and follow it from generation to generation, it then exhibits a picture of the progreſs of human intellect. This progreſs is ſubject to the ſame general laws, obſervable in the individual developement of our faculties; being the reſult of that very developement conſidered at once in a great number of individuals united in ſociety. But the reſult which every inſtant preſents, depends upon that of the preceding inſtants, and has an influence on the inſtants which follow.

This picture, therefore, is hiſtorical; ſince ſubjected as it will be to perpetual variations, it is formed by the ſucceſſive obſervation of human ſocieties at the different eras through which they have paſſed. It will accordingly exhibit the order in which the changes have taken place, explain the influence of every paſt period upon that which follows it, and thus ſhow, by the modifications which the human ſpecies has experienced, in its inceſſant renovation through the immenſity of ages, the courſe which it has purſued, and the ſteps which it has advanced towards knowledge and happineſs. From theſe obſervations on what man has heretofore been, and what he is at preſent, we ſhall be led to the means of ſecuring and of accelerating the ſtill further progreſs, of which, from his nature, we may indulge the hope.

Such is the object of the work I have undertaken; the reſult of which will be to ſhow, from reaſoning and from facts, that no bounds have been fixed to the improvement of the human faculties; that the peſectibility of man is abſolutely indefinite; that the progreſs of this perfectibility, henceforth above the controul of every power that would impede it, has no other limit than the duration of the globe upon which nature has placed us. The courſe of this progreſs may doubtleſs be more or leſs rapid, but it can never be retrograde; at leaſt while the earth retains its ſituation in the ſyſtem of the univerſe, and the laws of this ſyſtem ſhall neither effect upon the globe a general overthrow, nor introduce

ſuch changes as would no longer permit the human race to preſerve and exerciſe therein the ſame faculties, and find the ſame reſources.

The firſt ſtate of civilization obſervable in the human ſpecies, is that of a ſociety of men, few in number, ſubſiſting by means of hunting and fiſhing, unacquainted with every art but the imperfect one of fabricating in an uncouth manner their arms and ſome houſehold utenſils, and of conſtructing or digging for themſelves an habitation; yet already in poſſeſſion of a language for the communication of their wants, and a ſmall number of moral ideas, from which are deduced their common rules of conduct, living in families, conforming themſelves to general cuſtoms that ſerve inſtead of laws, and having even a rude form of government.

In this ſtate it is apparent that the uncertainty and difficulty of procuring ſubſiſtence, and the unavoidable alternative of extreme fatigue or an abſolute repoſe, leave not to man the leiſure in which, by reſigning himſelf to meditation, he might enrich his mind with new combinations. The means of ſatisfying his wants are even too dependent upon chance and the ſeaſons, uſefully to excite an induſtry, the progreſſive improvement of which might be tranſmitted to his progeny; and accordingly the attention of each is confined to the improvement of his individual ſkill and addreſs.

For this reaſon, the progreſs of the human ſpecies muſt in this ſtage have been extremely ſlow; it could

make no advance but at diſtant intervals, and when favoured by extraordinary circumſtances. Meanwhile, to the ſubſiſtance derived from hunting and fiſhing, or from the fruits which the earth ſpontaneouſly offered, ſucceeds the ſuſtenance afforded by the animals which man has tamed, and which he knows how to preſerve and multiply. To theſe means is afterwards added an imperfect agriculture; he is no longer content with the fruit or the plants which chance throws in his way; he learns to form a ſtock of them, to collect them around him, to ſow or to plant them, to favour their reproduction by the labour of culture.

Property, which, in the firſt ſtate, was confined to his houſehold utenſils, his arms, his nets, and the animals he killed, is now extended to his flock, and next to the land which he has cleared and cultivated. Upon the death of its head, this property naturally devolves to the family. Some individuals poſſeſs a ſuperfluity capable of being preſerved. If it be abſolute, it gives riſe to new wants. If confined to a ſingle article, while the proprietor feels the want of other articles, this want ſuggeſts the idea of exchange. Hence moral relations multiply, and become complicate. A greater ſecurity, a more certain and more conſtant leiſure, afford time for meditation, or at leaſt for a continued ſeries of obſervations. The cuſtom is introduced, as to ſome individuals, of giving a part of their ſuperfluity in exchange for labour, by which they might be exempt

from labour themſelves. There accordingly exiſts a claſs of men whoſe time is not engroſſed by corporeal exertions, and whoſe deſires extend beyond their ſimple wants. Induſtry awakes; the arts already known, expand and improve: the facts which chance preſents to the obſervation of the moſt attentive and beſt cultivated minds, bring to light new arts; as the means of living become leſs dangerous and leſs precarious, population increaſes; agriculture, which can provide for a greater number of individuals upon the ſame ſpace of ground, ſupplies the place of the other ſources of ſubſiſtence; it favours the multiplication of the ſpecies, by which it is favoured in its turn; in a ſociety become more ſedentary, more connected, more intimate, ideas that have been acquired communicate themſelves more quickly, and are perpetuated with more certainty. And now the dawn of the ſciences begins to appear; man exhibits an appearance diſtinct from the other claſſes of animals, and is no longer like them confined to an improvement purely individual.

The more extenſive, more numerous and more complicated relations which men now form with each other, cauſe them to feel the neceſſity of having a mode of communicating their ideas to the abſent, of preſerving the remembrance of a fact with more preciſion than by oral tradition, of fixing the conditions of an agreement more ſecurely than by the memory of witneſſes, of ſtating, in a way leſs liable to change, thoſe reſpected cuſtoms to which the members of any ſociety agree to ſubmit their conduct,

Accordingly the want of writing is felt, and the art invented. It appears at firſt to have been an abſolute painting, to which ſucceeded a conventional painting, preſerving ſuch traits only as were characteriſtic of the objects. Afterwards, by a kind of metaphor analogous to that which was already introduced into their language, the image of a phyſical object became expreſſive of moral ideas. The origin of thoſe ſigns, like the origin of words, were liable in time to be forgotten ; and writing became the art of affixing ſigns of convention to every idea, every word, and of conſequence to every combination of ideas and words.

There was now a language that was written, and a language that was ſpoken, which it was neceſſary equally to learn, between which there muſt be eſtabliſhed a reciprocal correſpondence.

Some men of genius, the eternal benefactors of the human race, but whoſe names and even country are for ever buried in oblivion, obſerved that all the words of a language were only the combinations of a very limited number of primitive articulations ; but that this number, ſmall as it was, was ſufficient to form a quantity almoſt infinite of different combinations. Hence they conceived the idea of repreſenting by viſible ſigns, not the ideas or the words that anſwered to them, but thoſe ſimple elements of which the words are compoſed.

Alphabetical writing was then introduced. A ſmall number of ſigns ſerved to expreſs every thing in this

mode, as a ſmall number of ſounds ſufficed to expreſs every thing orally. The language written and the language ſpoken were the ſame; all that was neceſſary was to be able to know, and to form, the few given ſigns; and this laſt ſtep ſecured for ever the progreſs of the human race.

It would perhaps be deſirable at the preſent day, to inſtitute a written language, which, devoted to the ſole uſe of the ſcienees, expreſſing only ſuch combinations of ſimple ideas as are found to be exactly the ſame in every mind, employed only upon reaſonings of logical ſtrictneſs, upon operations of the mind preciſe and determinate, might be underſtood by men of every country, and be tranſlated into all their idioms, without being, like thoſe idioms, liable to corruption, by paſſing into common uſe.

Then, ſingular as it may appear, this kind of writing, the preſervation of which would only have ſerved to prolong ignorance, would become, in the hands of philoſophy, an uſeful inſtrument for the ſpeedy propagation of knowledge, and advancement of the ſciences.

It is between this degree of civilization and that in which we ſtill find the ſavage tribes, that we muſt place every people whoſe hiſtory has been handed down to us, and who, ſometimes making new advancements, ſometimes plunging themſelves again into ignorance, ſometimes floating between the two alternatives or ſtopping at a certain limit, ſometimes totally diſappearing

from the earth under the ſword of conquerors, mixing with thoſe conquerors, or living in ſlavery; laſtly, ſometimes receiving knowledge from a more enlightened people, to tranſmit it to other nations,—form an unbroken chain of connection between the earlieſt periods of hiſtory and the age in which we live, between the firſt people known to us, and the preſent nations of Europe.

In the picture then which I mean to ſketch, three diſtinct parts are perceptible.

In the firſt, in which the relations of travellers exhibit to us the condition of mankind in the leaſt civilized nations, we are obliged to gueſs by what ſteps man in an iſolated ſtate, or rather confined to the ſociety neceſſary for the propagation of the ſpecies, was able to acquire thoſe firſt degrees of improvement, the laſt term of which is the uſe of an articulate language: an acquiſition that preſents the moſt ſtriking feature, and indeed the only one, a few more extenſive moral ideas and a ſlight commencement of ſocial order excepted, which diſtinguiſhes him from animals living like himſelf in regular and permanent ſociety. In this part of our picture, then, we can have no other guide than an inveſtigation of the developement of our faculties.

To this firſt guide, in order to follow man to the point in which he exerciſes arts, in which the rays of ſcience begin to enlighten him, in which nations are united by commercial intercourſe; in which, in fine, alphabetical writing is invented, we may add the hiſtory

of the ſeveral ſocieties that have been obſerved in almoſt every intermediate ſtate: though we can follow no individual one through all the ſpace which ſeparates theſe two grand epochs of the human race.

Here the picture begins to take its colouring in great meaſure from the ſeries of facts tranſmitted to us by hiſtory: but it is neceſſary to ſelect theſe facts from that of different nations, and at the ſame time compare and combine them, to form the ſuppoſed hiſtory of a ſingle people, and delineate its progreſs.

From the period that alphabetical writing was known in Greece, hiſtory is connected by an uninterrupted ſeries of facts and obſervations, with the period in which we live, with the preſent ſtate of mankind in the moſt enlightened countries of Europe; and the picture of the progreſs and advancement of the human mind becomes ſtrictly hiſtorical. Philoſophy has no longer any thing to gueſs, has no more ſuppoſitious combinations to form; all it has to do is to collect and arrange facts, and exhibit the uſeful truths which ariſe from them as a whole, and from the different bearings of their ſeveral parts.

There remains only a third picture to form,—that of our hopes, or the progreſs reſerved for future generations, which the conſtancy of the laws of nature ſeems to ſecure to mankind. And here it will be neceſſary to ſhew by what ſteps this progreſs, which at preſent may appear chimerical, is gradually to be rendered poſſible,

and even eaſy; how truth, in ſpite of the tranſient ſucceſs of prejudices, and the ſupport they receive from the corruption of governments or of the people, muſt in the end obtain a durable triumph; by what ties nature has indiſſolubly united the advancement of knowledge with the progreſs of liberty, virtue, and reſpect for the natural rights of man; how theſe bleſſings, the only real ones, though ſo frequently ſeen apart as to be thought incompatible, muſt neceſſarily amalgamate and become inſeparable, the moment knowledge ſhall have arrived at a certain pitch in a great number of nations at once, the moment it ſhall have penetrated the whole maſs of a great people, whoſe language ſhall have become univerſal, and whoſe commercial intercourſe ſhall embrace the whole extent of the globe. This union having once taken place in the whole enlightened claſs of men, this claſs will be conſidered as the friends of human kind, exerting themſelves in concert to advance the improvement and happineſs of the ſpecies.

We ſhall expoſe the origin and trace the hiſtory of general errors, which have more or leſs contributed to retard or ſuſpend the advance of reaſon, and ſometimes even, as much as political events, have been the cauſe of man's taking a retrograde courſe towards ignorance.

Thoſe operations of the mind that lead to or retain us in error, from the ſubtle paralogiſm, by which the moſt penetrating mind may be deceived, to the mad reveries of enthuſiaſts, belong equally, with that juſt

mode of reaſoning that conducts us to truth, to the theory of the developement of our individual faculties; and for the ſame reaſon, the manner in which general errors are introduced, propagated, traſmitted, and rendered permanent among nations, forms a part of the picture of the progreſs of the human mind. Like truths which improve and enlighten it, they are the conſequence of its activity, and of the diſproportion that always exiſts between what it actually knows, what it has the deſire to know, and what it conceives there is a neceſſity of acquiring.

It is even apparent, that, from the general laws of the developement of our faculties, certain prejudices muſt neceſſarily ſpring up in each ſtage of our progreſs, and extend their ſeductive influence beyond that ſtage; becauſe men retain the errors of their infancy, their country, and the age in which they live, long after the truths neceſſary to the removal of thoſe errors are acknowledged.

In ſhort, there exiſt, at all times and in all countries, different prejudices, according to the degree of illumination of the different claſſes of men, and according to their profeſſions. If the prejudices of philoſophers be impediments to new acquiſitions of truth, thoſe of the leſs enlighted claſſes retard the propagation of truths already known, and thoſe of eſteemed and powerful profeſſions oppoſe like obſtacles. Theſe are the three kinds of enemies which reaſon is continu-

ally obliged to encounter, and over which ſhe frequently does not triumph till after a long and painful ſtruggle. The hiſtory of theſe conteſts, together with that of the riſe, triumph, and fall of prejudice, will occupy a conſiderable place in this work, and will by no means form the leaſt important or leaſt uſeful part of it.

If there be really ſuch an art as that of foreſeeing the future improvement of the human race, and of directing and haſtening that improvement, the hiſtory of the progreſs it has already made muſt form the principal baſis of this art. Philoſophy, no doubt, ought to proſcribe the ſuperſtitious idea, which ſuppoſes no rules of conduct are to be found but in the hiſtory of paſt ages, and no truths but in the ſtudy of the opinions of antiquity. But ought it not to include in the proſcription, the prejudice that would proudly reject the leſſons of experience? Certainly it is meditation alone that can, by happy combinations, conduct us to the general principles of the ſcience of man. But if the ſtudy of individuals of the human ſpecies be of uſe to the metaphyſician and moraliſt, why ſhould that of ſocieties be leſs uſeful to them? And why not of uſe to the political philoſopher? If it be advantageous to obſerve the ſocieties that exiſt at one and the ſame period, and to trace their connection and reſemblance, why not to obſerve them in a ſucceſſion of periods? Even ſuppoſing that ſuch obſervation might be neglected in the inveſtigation of ſpeculative truths, ought it to be neglected when

the queſtion is to apply thoſe truths to practice, and to deduce from ſcience the art that ſhould be the uſeful reſult? Do not our prejudices, and the evils that are the conſequence of them, derive their ſource from the prejudices of our anceſtors? And will it not be the ſureſt way of undeceiving us reſpecting the one, and of preventing the other, to develope their origin and effects?

Are we not arrived at the point when there is no longer any thing to fear, either from new errors, or the return of old ones; when no corrupt inſtitution can be introduced by hypocriſy, and adopted by ignorance or enthuſiaſm; when no vicious combination can effect the infelicity of a great people? Accordingly would it not be of advantage to know how nations have been deceived, corrupted, and plunged in miſery?

Every thing tells us that we are approaching the era of one of the grand revolutions of the human race. What can better enlighten us to what we may expect, what can be a ſurer guide to us, amidſt its commotions, than the picture of the revolutions that have preceded and prepared the way for it? The preſent ſtate of knowledge aſſures us that it will be happy. But is it not upon condition that we know how to aſſiſt it with all our ſtrength? And, that the happineſs it promiſes may be leſs dearly bought, that it may ſpread with more rapidity over a greater ſpace, that it may be more complete in its effects, is it not requiſite to ſtudy, in the hiſtory of the human mind, what obſtacles remain to be feared,

and by what means thoſe obſtacles are to be ſurmounted ?

I ſhall divide the ſpace through which I mean to run, into nine grand epochs ; and ſhall preſume, in a tenth, to advance ſome conjectures upon the future deſtiny of mankind.

I ſhall confine myſelf to the principal features that characteriſe each ; I ſhall give them in the group, without troubling myſelf with exceptions or detail. I ſhall indicate the objects, of the reſults of which the work itſelf will preſent the developements and the proofs.

# FIRST EPOCH.

## *Men united into Hordes.*

WE have no direct information by which to aſcertain what has preceded the ſtate of which we are now to ſpeak; and it is only by examining the intellectual or moral faculties, and the phyſical conſtitution of man, that we are enabled to conjecture by what means he arrived at this firſt degree of civilization.

Accordingly an inveſtigation of thoſe phyſical qualities favourable to the firſt formation of ſociety, together with a ſummary analyſis of the developement of our intellectual or moral faculties, muſt ſerve as an introduction to this epoch.

A ſociety conſiſting of a family appears to be natural to man. Formed at firſt by the want which children have of their parents, and by the affection of the mother, as well as that of the father, though leſs general and leſs lively, time was allowed, by the long continuance of this want, for the birth and growth of a ſentiment which muſt have excited the deſire of perpetuating the union. The continuance of the want was alſo ſufficient for the advantages of the union to be felt. A family placed upon a ſoil that afforded an eaſy ſubſiſtence,

might afterwards have multiplied and become a horde.

Hordes that may have owed their origin to the union of ſeveral diſtinct families, muſt have been formed more ſlowly and more rarely, the union depending on motives leſs urgent and the concurrence of a greater number of circumſtances.

The art of fabricating arms, of preparing aliments, of procuring the utenſils requiſite for this preparation, of preſerving theſe aliments as a proviſion againſt the ſeaſons in which it was impoſſible to procure a freſh ſupply of them—theſe arts, confined to the moſt ſimple wants, were the firſt fruits of a continued union, and the firſt features that diſtinguiſhed human ſociety from the ſociety obſervable in many ſpecies of beaſts.

In ſome of theſe hordes, the women cultivate round the huts plants which ſerve for food and ſuperſede the neceſſity of hunting and fiſhing. In others, formed in places where the earth ſpontaneouſly offers vegetable nutriment, a part of the time of the ſavage is occupied by the care of ſeeking and gathering it. In hordes of the laſt deſcription, where the advantage of remaining united is leſs felt, civilization has been obſerved very little to exceed that of a ſociety conſiſting of a ſingle family. Meanwhile there has been found in all the uſe of an articulate language.

More frequent and more durable connections with the ſame individuals, a ſimilarity of intereſts, the ſuccour

mutually given, whether in their common hunting or againſt an enemy, muſt have equally produced both the ſentiment of juſtice and a reciprocal affection between the members of the ſociety. In a ſhort time this affection would transform itſelf into attachment to the ſociety.

The neceſſary conſequence was a violent enmity, and a deſire of vengeance not to be extinguiſhed, againſt the enemies of the horde.

The want of a chief, in order to act in common, and thereby defend themſelves the better, and procure with greater eaſe a more certain and more abundant ſubſiſtence, introduced the firſt idea of public authority into theſe ſocieties. In circumſtances in which the whole horde was intereſted, reſpecting which a common reſolution muſt be taken, all thoſe concerned in executing the reſolution were to be conſulted. The weakneſs of the females, which exempted them from the diſtant chace and from war, the uſual ſubjects of debate, excluded them alike from theſe conſultations. As the reſolutions demanded experience, none were admitted but ſuch as were ſuppoſed to poſſeſs it. The quarrels that aroſe in a ſociety diſturbed its harmony, and were calculated to deſtroy it: it was natural to agree that the deciſion of them ſhould be referred to thoſe whoſe age and perſonal qualities inſpired the greateſt confidence. Such was the origin of the firſt political inſtitutions.

The formation of a language muſt have preceded theſe inſtitutions. The idea of expreſſing objects by conventional ſigns appears to be above the degree of intelligence attained in this ſtage of civilization; and it is probable they were only brought into uſe by length of time, by degrees, and in a manner in ſome ſort imperceptible.

The invention of the bow was the work of a ſingle man of genius; the formation of a language that of the whole ſociety. Theſe two kinds of progreſs belong equally to the human ſpecies. The one, more rapid, is the reſult of thoſe new combinations which men favoured by nature are capable of forming; is the fruit of their meditations and the energies they diſplay: the other, more ſlow, ariſes from the reflections and obſervations that offer themſelves to all men, and from the habits contracted in their common courſe of life.

Regular movements adjuſted to each other in due proportion, are capable of being executed with a leſs degree of fatigue; and they who ſee, or hear them, perceive their order and relation with greater facility. For both theſe reaſons, they form a ſource of pleaſure. Thus the origin of the dance, of muſic and of poetry, may be traced to the infant ſtate of ſociety. They were employed for the amuſemeut of youth and upon occaſions of public feſtivals. There were at that period love ſongs and war ſongs; and even muſical inſtruments were invented. Neither was the art of eloquence abſolutely unknown in theſe hordes; at leaſt they could aſſume in

their ſet ſpeeches a more grave and ſolemn tone, and were not ſtrangers to rhetorical exaggeration.

The errors that diſtinguiſh this epoch of civilization are the converſion of vengeance and cruelty towards an enemy into virtue; the prejudice that conſigns the female part of ſociety to a ſort of ſlavery; the right of commanding in war conſidered as the prerogative of an individual family; together with the firſt dawn of various kinds of ſuperſtition. Of theſe it will be neceſſary to trace the origin and aſcertain the motives. For man never adopts without reaſon any errors, except what his early education have in a manner rendered natural to him: if he embrace any new error, it is either becauſe it is connected with thoſe of his infancy, or becauſe his opinions, paſſions, intereſts, or other circumſtances, diſpoſe him to embrace it.

The only ſciences known to ſavage hordes, are a ſlight and crude idea of aſtronomy, and the knowledge of certain medicinal plants employed in the cure of wounds and diſeaſes; and even theſe are already corrupted by a mixture of ſuperſtition.

Meanwhile there is preſented to us in this epoch one fact of importance in the hiſtory of the human mind. We can here perceive the beginnings of an inſtitution, that in its progreſs has been attended with oppoſite effects, accelerating the advancement of knowledge, at the ſame time that it diſſeminated error; enriching the ſciences with new truths, but precipitating the people

into ignorance and religious ſervitude, and obliging them to purchaſe a few tranſient benefits at the price of a long and ſhameful tyranny.

I mean the formation of a claſs of men the depoſitaries of the elements of the ſciences or proceſſes of the arts, of the myſteries or ceremonies of religion, of the practices of ſuperſtition, and frequently even of the ſecrets of legiſlation and polity. I mean that ſeparation of the human race into two portions; the one deſtined to teach, the other to believe; the one proudly concealing what it vainly boaſts of knowing, the other receiving with reſpect whatever its teachers condeſcend to reveal: the one wiſhing to raiſe itſelf above reaſon, the other humbly renouncing reaſon, and debaſing itſelf below humanity, by acknowledging in its fellow men prerogatives ſuperior to their common nature.

This diſtinction, of which, at the cloſe of the eighteenth century, we ſtill ſee the remains in our prieſts, is obſervable in the leaſt civilized tribes of ſavages, who have already their quacks and ſorcerers. It is too general, and too conſtantly meets the eye in all the ſtages of civilization, not to have a foundation in nature itſelf: and we ſhall accordingly find in the ſtate of the human faculties at this early period of ſociety, the cauſe of the credulity of the firſt dupes, and of the rude cunning of the firſt impoſtors.

## SECOND EPOCH.

*Paſtoral State of Mankind.—Tranſition from that to the Agricultural State.*

THE idea of preſerving certain animals taken in hunting, muſt readily have occurred, when their docility rendered the preſervation of them a taſk of no difficulty, when the ſoil round the habitations of the hunters afforded theſe animals an ample ſubſiſtence, when the family poſſeſſed a greater quantity of them than it could for the preſent conſume, and at the ſame time might have reaſon to apprehend the being expoſed to want, from the ill ſucceſs of the next chace, or the intemperature of the ſeaſons.

From keeping theſe animals as a ſimple ſupply againſt a time of need, it was obſerved that they might be made to multiply, and thus furniſh a more durable proviſion. Their milk afforded a farther reſource: and thoſe fruits of a flock, which, at firſt, were regarded only as a ſupplement to the produce of the chace, became the moſt certain, moſt abundant and leaſt painful means of ſubſiſtence. Accordingly the chace ceaſed to be conſidered as the principal of theſe reſources, and ſoon as any reſource at all; it was purſued only as a pleaſure, or as a neceſſary precaution for keeping beaſts

of prey from the flocks, which, become more numerous, could no longer find round the habitations of their keepers a ſufficient nouriſhment.

A more ſedentary and leſs fatiguing life afforded leiſure favourable to the developement of the mind. Secure of ſubſiſtence, no longer anxious reſpecting their firſt and indiſpenſable wants, men ſought, in the means of providing for thoſe wants, new ſenſations.

The arts made ſome progreſs: new light was acquired reſpecting that of maintaining domeſtic animals, of favouring their reproduction, and even of improving their breed.

Wool was uſed for apparel, and cloth ſubſtituted in the place of ſkins.

Family ſocieties became more urbane, without being leſs intimate. As the flocks of each could not multiply in the ſame proportion, a difference of wealth was eſtabliſhed. Then was ſuggeſted the idea of one man ſharing the produce of his flocks with another who had no flocks, and who was to devote his time and ſtrength to the care they require. Then it was found that the labour of a young and able individual was of more value than the expence of his bare ſubſiſtence; and the cuſtom was introduced of retaining priſoners of war as ſlaves, inſtead of putting them to death.

Hoſpitality, which is practiſed alſo among ſavages, aſſumes in the paſtoral ſtate a more decided and important character, even among thoſe wandering hordes

that dwell in their waggons or in tents. More frequent occaſions occur for the reciprocal exerciſe of this act of humanity between man and man, between one people and another. It becomes a ſocial duty, and is ſubjected to laws.

As ſome families poſſeſſed not only a ſure ſubſiſtence, but a conſtant ſuperfluity, while others were deſtitute of the neceſſaries of life, natural compaſſion for the ſufferings of the latter gave birth to the ſentiment and practice of beneficence.

Manners of courſe muſt have ſoftened. The ſlavery of women became leſs ſevere, and the wives of the rich were no longer condemned to fatiguing labours.

A greater variety of articles employed in ſatisfying the different wants, a greater number of inſtruments to prepare theſe wants, and a greater inequality in their diſtribution, gave energy to exchange, and converted it into actual commerce: it was impoſſible it ſhould extend without the neceſſity of a common meaſure and a ſpecies of money being felt.

Hordes became more numerous. At the ſame time, in order the more eaſily to maintain their flocks, they placed habitations, when fixed, more apart from each other; or changed them into movable encampments, as ſoon as they had diſcovered the uſe of certain ſpecies of animals they had tamed, in drawing or carrying burthens.

Each nation had its chief for the conduct of war; but being divided into tribes, from the neceſſity of

ſecuring paſturage, each tribe had alſo its chief. This ſuperiority was attached almoſt univerſally to certain families. The heads however of families in poſſeſſion of numerous flocks, a multitude of ſlaves, and who employed in their ſervice a great number of poor, partook of the authority of the chiefs of the tribe, as theſe alſo ſhared in that of the chiefs of the nation; at leaſt when, from the reſpect due to age, to experience, and the exploits they had performed, they were conceived to be worthy of it. And it is at this epoch of ſociety that we muſt place the origin of ſlavery, and inequality of political rights between men arived at the age of maturity.

The conſuls of the chiefs of the family or tribe decided, from ideas of natural juſtice or of eſtabliſhed uſage, the numerous and intricate diſputes that already prevailed. The tradition of theſe deciſions, by confirming and perpetuating the uſage, ſoon formed a kind of juriſprudence more regular and coherent than the progreſs of ſociety had rendered in other reſpects neceſſary. The idea of property and its rights had acquired greater extent and preciſion. The diviſion of inheritances becoming more important, there was a neceſſity of ſubjecting it to fixed regulations. The agreements that were entered into being more frequent, were no longer confined to ſuch ſimple objects; they were to be ſubjected to forms; and the manner of verifying them, to ſecure their execution, had alſo its laws.

The utility of obſerving the ſtars, the occupation which in long evenings they afforded to the mind, and the leiſure enjoyed by the ſhepherds, effected a ſlight degree of improvement in aſtronomy.

But we obſerve advancing at the ſame time the art of deceiving men in order to rob them, and of aſſuming over their opinions an authority founded upon the hopes and fears of the imagination. More regular forms of worſhip begin to be eſtabliſhed, and ſyſtems of faith leſs coarſely combined. The ideas entertained of ſupernatural powers, acquire a ſort of refinement: and with this refinement we ſee ſpring up in one place pontiff princes, in another ſacerdotal families or tribes, in a third colleges of prieſts; a claſs of individuals uniformly affecting inſolent prerogatives, ſeparating themſelves from the people, the better to enſlave them, and ſeizing excluſively upon medicine and aſtronomy, that they may poſſeſs every hold upon the mind for ſubjugating it, and leave no means by which to unmaſk their hypocriſy, and break in pieces their chains.

Languages were enriched without becoming leſs figurative or leſs bold. The images employed were more varied and more pleaſing. They were acquired in paſtoral life, as well as in the ſavage life of the foreſts, from the regular phenomena of nature, as well as from its wildneſs and eccentricities. Song, poetry, and inſtruments of muſic were improved during a leiſure that

produced an audience more peaceable, and at the ſame time more difficult to pleaſe, and allowed the artiſt to reflect on his own ſentiments, examine his firſt ideas, and form a ſelection from them.

It could not have eſcaped obſervation that ſome plants yielded the flocks a better and more abundant ſubſiſtence than others. The advantage was accordingly felt of favouring the production of theſe, of ſeparating them from plants leſs nutritive, unwholeſome, and even dangerous; and the means of effecting this were diſcovered.

In like manner, where plants, grain, the ſpontaneous fruits of the earth, contributed with the produce of the flocks to the ſubſiſtence of man, it muſt equally have been obſerved how thoſe vegetables multiplied; and the care muſt have followed of collecting them nearer to the habitations; of ſeparating them from uſeleſs vegetables, that they might occupy a ſoil to themſelves; of ſecuring them from untamed beaſts, from the flocks, and even from the rapacity of other men.

Theſe ideas muſt have equally occurred, and even ſooner, in more fertile countries, where the ſpontaneous productions of the earth almoſt ſufficed of themſelves for the ſupport of men; who now began to devote themſelves to agriculture.

In ſuch a country, and under a happy climate, the ſame ſpace of ground produces, in corn, roots, and fruit, wherewith to maintain a greater number of men than if

employed as paſturage. Accordingly, when the nature of the ſoil rendered not ſuch cultivation too laborious, when the diſcovery was made of employing therein thoſe ſame animals uſed by paſtoral tribes for the tranſport from place to place of themſelves and their effects, agriculture became the moſt plentiful ſource of ſubſiſtence, the firſt occupation of men; and the human race arrived at the third epoch of its progreſs.

There are people who have remained, from time immemorial, in one of the two ſtates we have deſcribed. They have not only not riſen of themſelves to any higher degree of improvement, but the connection and commercial intercourſe they have had with nations more civilized have failed to produce this effect. Such connections and intercourſe have communicated to them ſome knowledge, ſome induſtry, and a great many vices, but have never been able to draw them from their ſtate of mental ſtagnation.

The principal cauſes of this phenomenon are to be found in climate; in habit; in the ſweets annexed to this ſtate of almoſt complete independence, an independence not to be equalled but in a ſociety more perfect even than our own; in the natural attachment of man to opinions received from his infancy, and to the cuſtoms of his country; in the averſion that ignorance feels to every ſort of novelty; in bodily and more eſpecially mental indolence, which ſuppreſs the feeble and as yet ſcarcely exiſting ſpark of curioſity; and laſtly, in the

empire which ſuperſtition already exerciſes over theſe infant ſocieties. To theſe cauſes muſt be added the avarice, cruelty, corruption and prejudices of poliſhed nations, who appear to theſe people more powerful, more rich, more informed, more active, but at the ſame time more vicious, and particularly leſs happy than themſelves. They muſt frequently indeed have been leſs ſtruck with the ſuperiority of ſuch nations, than terrified at the multiplicity and extent of their wants, the torments of their avarice, the never ceaſing agitations of their ever active, ever inſatiable paſſions. This deſcription of people has by ſome philoſophers been pitied, and by others admired and applauded; theſe have conſidered as wiſdom and virtue, what the former have called by the names of ſtupidity and ſloth.

The queſtion in debate between them will be reſolved in the courſe of this work. It will there be ſeen why the progreſs of the mind has not been at all times accompanied with an equal progreſs towards happineſs and virtue; and how the leaven of prejudices and errors has polluted the good that ſhould flow from knowledge, a good which depends more upon the purity of that knowledge than its extent. Then it will be found that the ſtormy and arduous tranſition of a rude ſociety to the ſtate of civilization of an enlightened and free people, implies no degeneration of the human ſpecies, but is a neceſſary criſis in its gradual advance towards abſolute perfection. Then it will be found that it is not the in-

creaſe of knowledge, but its decline, that has produced the vices of poliſhed nations, and that, inſtead of corrupting, it has in all caſes ſoftened, where it has been unable to correct or to change the manners of men.

## THIRD EPOCH.

*Progreſs of Mankind from the Agricultural State to the Invention of Alphabetical Writing.*

THE uniformity of the picture we have hitherto drawn will ſoon diſappear; and we ſhall no longer have to delineate thoſe indiſtinct features, thoſe ſlight ſhades of difference, that diſtinguiſh the manners, characters, opinions and ſuperſtitions of men, rooted, as it were, to their ſoil, and perpetuating almoſt without mixture a ſingle family.

Invaſions, conqueſts, the riſe and overthrow of empires, will ſhortly be ſeen mixing and confounding nations, ſome times diſperſing them over a new territory, ſometimes covering the ſame ſpot with different people.

Fortuitous events will continually interpoſe, and derange the ſlow but regular movement of nature, often retarding, ſometimes accelerating it.

The appearances we obſerve in a nation in any particular age, have frequently their cauſe in a revolution happening ten ages before it, and at a diſtance of a thouſand leagues; and the night of time conceals a great portion of thoſe events, the influence of which we ſee

operating upon the men who have preceded us, and ſometimes extending to ourſelves.

But we have firſt to conſider the effects of the change of which we are ſpeaking, in a ſingle people, and independently of the influence that conqueſts and the intermixture of nations may have exerciſed.

Agriculture attaches man to the ſoil which he cultivates. It is no longer his perſon, his family, his implements for hunting, that it would ſuffice him to tranſport; it is no longer even his flocks which he might drive before him. The ground not belonging in common to all, he would find in his flight no ſubſiſtence, either for himſelf or the animals from which he derives his ſupport.

Each parcel of land has a maſter, to whom alone the fruits of it belong. The harveſt exceeding the maintenance of the animals and men by whom it has been prepared, furniſhes the proprietor with an annual wealth, that he has no neceſſity of purchaſing with his perſonal labour.

In the two former ſtates of ſociety, every individual, or every family at leaſt, practiſed nearly all the neceſſary arts.

But when there were men, who, without labour, lived upon the produce of their land, and others who received wages; when occupations were multiplied, and the proceſſes of the arts become more extenſive and complicate, common intereſt ſoon enforced a ſeparation

of them. It was perceived, that the induſtry of an individual, when confined to fewer objects, was more complete; that the hand executed with greater readineſs and preciſion a ſmaller number of operations that long habit had rendered more familiar; that a leſs degree of underſtanding was required to perform a work well, when that work had been more frequently repeated.

Accordingly, while one portion of men devoted themſelves to the labours of huſbandry, others prepared the neceſſary inſtruments. The care of the flocks, domeſtic economy, and the making of different articles of apparel, became in like manner diſtinct employments. As, in families poſſeſſing but little property, one of theſe occupations was inſufficient of itſelf to engroſs the whole time of an individual, ſeveral were performed by the ſame perſon, for which he received the wages only of a ſingle man. Soon the materials uſed in the arts increaſing, and their nature demanding different modes of treatment, ſuch as were analogous in this reſpect became diſtinct from the reſt, and had a particular claſs of workmen. Commerce expanded, embraced a greater number of objects, and derived them from a greater extent of territory: and then was formed another claſs of men, whoſe ſole occupation was the purchaſe of commodities for the purpoſe of preſerving, tranſporting, or ſelling them again with profit.

Thus to the three claſſes of men before diſtinguiſhable in paſtoral life, that of proprietors, that of the

domeſtics of their family, and laſtly, that of ſlaves, we muſt now add, that of the different kinds of artiſans, and that of merchants.

Then it was, that, in a ſociety more fixed, more compact, and more intricate, the neceſſity was felt of a more regular and more ample code of legiſlation; of determining with greater preciſion the puniſhments for crimes, and the forms to be obſerved as to contracts; of ſubjecting to ſeverer rules the means of aſcertaining and verifying the facts to which the law was to be applied.

This progreſs was the ſlow and gradual work of neceſſity and concurring circumſtances: it is but a ſtep or two farther in the route we have already traced in paſtoral nations.

In the firſt two epochs, education was purely domeſtic. The children were inſtructed by reſiding with the father, in the common labours that were followed, or the few arts that were known. From him they received the ſmall number of traditions that formed the hiſtory of the horde or of the family, the fables that had been tranſmitted, the knowledge of the national cuſtoms, together with the principles and prejudices that compoſed their pretty code of morality. Singing, dancing and military exerciſes they acquired in the ſociety of their friends.

In the epoch at which we are arrived, the children of the richer families received a ſort of common educa-

tion, either in towns, from converſation with the old and experienced, or in the houſe of a chief, to whom they attached themſelves. Here it was they were inſtructed in the laws, cuſtoms and prejudices of the country, and learned to chant poems deſcriptive of the events of its hiſtory.

A more ſedentary mode of life had introduced a greater equality between the ſexes. The wives were no longer conſidered as ſimple objects of utility, as only the more familiar ſlaves of their maſter. Man looked upon them as companions, and ſaw how conducive they might be made to his happineſs. Meanwhile, even in countries where they were treated with moſt reſpect, where polygamy was proſcribed, neither reaſon nor juſtice extended ſo far as to an entire reciprocity as to the right of divorce, and an equal infliction of puniſhment in caſes of infidelity.

The hiſtory of this claſs of prejudices, and of their influence on the lot of the human ſpecies, muſt enter into the picture I have propoſed to draw; and nothing can better evince how cloſely man's happineſs is connected with the progreſs of reaſon.

Some nations remained diſperſed over the country. Others united themſelves in towns, which became the reſidence of the common chief, called by a name anſwering to the word *king*, of the chiefs of tribes who partook his power, and of the elders of every great family. There the common affairs of the ſociety were

decided, as well as individual diſputes. There the rich brought together the moſt valuable part of his wealth, that it might be ſecure from robbers, who muſt of courſe have multiplied with ſedentary riches. When nations remained diſperſed over a territory, cuſtom determined the time and place where the chiefs were to meet for deliberation upon the general intereſts of the community, and the adjudication of ſuits.

Nations who acknowledged a common origin, who ſpoke the ſame language, without abjuring war with each other, entered almoſt univerſally into a confederacy more or leſs cloſe, and agreed to unite themſelves, either againſt foreign enemies, or mutually to avenege their wrongs, or to diſcharge in common ſome religious duty.

Hoſpitality and commerce produced even ſome laſting ties between nations different in origin, cuſtoms and language; ties that by robbery and war were often diſſolved, but which neceſſity, ſtronger than the love of pillage or a thirſt for vengeance, afterwards renewed.

To murder the vanquiſhed, or to ſtrip and reduce them to ſlavery, was no longer the only acknowledged right between nations inimical to each other. Ceſſions of territory, ranſoms, tribute, in part ſupplied the place of thoſe barbarous outrages.

At this epoch every man that poſſeſſed arms was a ſoldier. He who had the beſt, and beſt knew how to exerciſe them, who could furniſh arms for others, upon condition that they followed him to the wars, and from

the proviſion he had amaſſed was in a capacity to ſupply their wants, neceſſarily became a chief. But this obedience, almoſt voluntary, did not involve them in a ſervile dependence.

As there was ſeldom occaſion for new laws; as there were no public expences to which the citizens were obliged to contribute, and ſuch as it became neceſſary to incur were defrayed out of the property of the chiefs, or the lands that were preſerved in common; as the idea of reſtricting induſtry and commerce by regulations was unknown; as offenſive war was decided by general conſent, or undertaken by thoſe only who were allured by the love of glory or deſire of pillage;—man believed himſelf free in theſe rude governments, notwithſtanding the hereditary ſucceſſion, almoſt univerſal, of their firſt chiefs or kings, and the prerogative, uſurped by other ſubordinate chiefs, of ſharing alone the political authority, and exerciſing the functions of government as well as of magiſtracy.

But frequently a king ſurrendered himſelf to the impulſe of perſonal vengeance, to the commiſſion of arbitrary acts of violence; frequently, in theſe privileged families, pride, hereditary hatred, the fury of love and thirſt for gold, engendered and multiplied crimes, while the chiefs aſſembled in towns, the inſtruments of the paſſions of kings, excited therein factions and civil wars, oppreſſed the people by iniquitous judgments, and tor-

mented them by the enormities of their ambition and rapacity.

In many nations the exceſſes of theſe families exhauſted the patience of the people, who accordingly extirpated, baniſhed, or ſubjected them to the common law; it was rarely that their title, with a limited authority, was preſerved to them; and we ſee take place what has ſince been called by the name of republics.

In other places, theſe kings, ſurrounded with minions, becauſe they had arms and treaſures to beſtow on them, exerciſed an abſolute authority: and ſuch was the origin of tyranny.

Elſewhere, particularly in countries where the ſmall nations did not unite together in towns, the firſt forms of thoſe crude inſtitutions were preſerved, till the period in which theſe people, either fell under the yoke of a conqueror, or, inſtigated by the ſpirit of robbery, ſpread themſelves over a foreign territory.

This tyranny, compreſſed within too narrow a ſpace, could have but a ſhort duration. The people ſoon threw off a yoke which force alone impoſed, and opinion had been unable to maintain. The monſter was ſeen too nearly not to excite more horror than dread: and force as well as opinion could forge no durable chains, if tyrants did not extend their empire to a diſtance ſufficiently great to be able, by dividing the nation they oppreſſed, to conceal from it the ſecret of its own power and of their weakneſs.

The hiſtory of republics belongs to the next epoch: but that which we are conſidering will preſently exhibit a new ſpectacle.

An agricultural people, ſubjected to a foreign power, does not abandon its hearths: neceſſity obliges it to labour for its maſters.

Sometimes the ruling nation contents itſelf with leaving, upon the conquered territory, chiefs to govern, ſoldiers to defend it, and eſpecially to keep in awe the inhabitants, and with exacting from the ſubmiſſive and diſarmed ſubjects a tribute in money or in proviſion.

Sometimes it ſeizes upon the territory itſelf, diſtributing the property of it to the officers and ſoldiers: in that caſe it annexes to each eſtate the old occupiers that cultivated it, and ſubjects them to this new kind of ſlavery, which is regulated by laws more or leſs rigorous. Military ſervice, and a tribute from the individuals of the conquered people, are the conditions upon which the enjoyment of theſe lands is granted to them.

Sometimes the ruling nation reſerves to itſelf the property of the territory, and diſtributes only the uſufruct upon the ſame conditions as in the preceding inſtance.

Commonly, however, all theſe modes of recompenſing the inſtruments of conqueſt, and of robbing the vanquiſhed, are adopted at the ſame time.

Hence we ſee new claſſes of men ſpring up; the deſcendants of the conquering nation and thoſe of the

oppreſſed; an heriditary nobility, not however to be confounded with the patrician dignity of republics; a people condemned to labour, to dependence, to a ſtate of degradation, but not to ſlavery; and laſtly, ſlaves attached to the glebe, a claſs differing from that of domeſtic ſlaves, whoſe ſervitude is leſs arbitrary, and who may appeal againſt the caprices of their maſters to the law.

It is here alſo we may obſerve the origin of the feodal ſyſtem, a peſt that has not been peculiar to our own climate, but has found a footing in almoſt every part of the globe, at the ſame periods of civilization, and whenever a country has been occupied by two people between whom victory has eſtabliſhed an hereditary inequality.

In fine, deſpotiſm was alſo the fruit of conqueſt. By deſpotiſm I here mean, in order to diſtinguiſh it from tyrannies of a tranſient duration, the oppreſſion of a people by a ſingle man, who governs it by opinion, by habit, and above all, by a military force, over the individuals of which he exerciſes himſelf an arbitrary authority, but at the ſame time is obliged to reſpect their prejudices, flatter their caprices, and ſooth their avidity and pride.

Perſonally guarded by a numerous and ſelect portion of this armed force, taken from the conquering nation or conſiſting of foreigners; immediately ſurrounded by the moſt powerful military chiefs; holding the provinces in

awe by means of generals who have the control of inferior detachments of this ſame armed body, the deſpot reigns by terror: nor is the poſſibility conceived, either by the depreſſed people, or any of thoſe diſperſed chiefs, rivals as they are to each other, of bringing againſt this man a force, which the armies he has at his command would not be able to cruſh at the inſtant.

A mutiny of the guards, an inſurrection in the capital, may be fatal to the deſpot, without cruſhing deſpotiſm. The general of an army, by deſtroying a family rendered ſacred by prejudice, may eſtabliſh a new dynaſty, but it is only to exerciſe a ſimilar tyranny.

In this third epoch, the people who have yet not experienced the misfortune, either of conquering, or of being conquered, exhibit a picture of thoſe ſimple but ſtrong virtues of agricultural nations, thoſe manners of heroic times, rendered ſo intereſting by a mixture of greatneſs and ferocity, of generoſity and barbariſm, that we are ſtill ſo far ſeduced as to admire and even regret them.

On the contrary, in empires founded by conquerors, we are preſented with a picture containing all the gradations and ſhades of that abaſement and corruption, to which deſpotiſm and ſuperſtition can reduce the human ſpecies. There we ſee ſpring up taxes upon induſtry and commerce, exactions obliging a man to purchaſe the right of employing as he pleaſes his own faculties, laws reſtricting him in the choice of his labour and uſe of

his property, other laws compelling the children to follow the profeſſion of their parents, confiſcations, cruel and atrocious puniſhments, in ſhort, all thoſe acts of arbitrary power, of legalized tyranny, of ſuperſtitious wickedneſs, that a contempt of human nature has been able to invent.

In hordes that have not undergone any conſiderable revolution, we may obſerve the progreſs of civilization ſtopping at no very elevated point. Meanwhile men already felt the want of new ideas or ſenſations; a want which is the firſt moving power in the progreſs of the human mind, equally awakening a taſte for the ſuperfluities of luxury, inciting induſtry and a ſpirit of curioſity, and piercing with an eager eye the veil with which nature has concealed her ſecrets. But it has happened, almoſt univerſally, that, to eſcape this want, men have ſought, and embraced with a kind of phrenzy, phyſical means of procuring ſenſations that may be continually renewed. Such is the practice of uſing fermented liquors, hot drinks, opium, tobacco, and betel. There are few nations among whom one or other of theſe practices is not obſerved, from which is derived a pleaſure that occupies whole days, or is repeated at every interval, that prevents the weight of time from being felt, ſatisfies the neceſſity of having the faculties rouſed or employed, and at laſt blunting the edge of this neceſſity, thus prolongs the duration of the infancy and inactivity of the human mind. Theſe practices, which have proved an obſtacle to the progreſs of ignorant and

enſlaved nations, produce alſo their effects in wiſer and more civilized countries, preventing truth from diffuſing through all claſſes of men a pure and equal light.

By expoſing what was the ſtate of the arts in the firſt two periods of ſociety, it will be ſeen how to thoſe of working wood, ſtone, or the bones of animals, of preparing ſkins, and weaving cloths, theſe infant people were able to add the more difficult ones of dyeing, of making earthen ware, and even their firſt attempts upon metals.

In iſolated nations the progreſs of theſe arts muſt have been ſlow; but the intercourſe, ſlight as it was, which took place between them, ſerved to haſten it. A new method of proceeding, a better contrivance, diſcovered by one people, became common to its neighbours. Conqueſt, which has ſo often deſtroyed the arts, began with extending, and contributed to the improving of them, before it ſtopped their progreſs, or was inſtrumental to their fall.

We obſerve many of theſe arts carried to the higheſt degree of perfection in countries, where the long influence of ſuperſtition and deſpotiſm has completed the degradation of all the human faculties. But, if we ſcrutiniſe the wonderful production of this ſervile induſtry, we ſhall find nothing in them which announces the inſpiration of genius; all the improvements appear to be the ſlow and painful work of reiterated practice; every where may be ſeen, amidſt this labour which aſto-

niſhes us, marks of ignorance and ſtupidity that diſcloſe its origin.

In ſedentary and peaceable ſocieties, aſtronomy, medicine, the moſt ſimple notions of anatomy, the knowledge of plants and minerals, the firſt elements of the ſtudy of the phenomena of nature, acquired ſome improvement, or rather extended themſelves by the mere influence of time, which, increaſing the ſtock of obſervations, led, in a manner ſlow, but ſure, to the eaſy and almoſt inſtant perception of ſome of the general conſequences to which thoſe obſervations were calculated to lead.

Meanwhile this improvement was extremely ſlender; and the ſciences would have remained for a longer period in a ſtate of earlieſt infancy, if certain families, and eſpecially particular caſts, had not made them the firſt foundation of their reputation and power.

Already the obſervation of man and of ſocieties had been connected with that of nature. Already a ſmall number of moral maxims, of a practical, as well as a political kind, had been tranſmitted from generation to generation. Theſe were ſeized upon by thoſe caſts: religious ideas, prejudices, and different ſuperſtitions contributed to a ſtill farther increaſe of their power. They ſucceeded the firſt aſſociations, or firſt families, of empirics and ſorcerers; but they practiſed more art to deceive and ſeduce the mind, which was now leſs rude and ignorant. The knowledge they actually

poſſeſſed, the apparent auſterity of their lives, an affected contempt for what was the object of the deſires of vulgar men, gave weight to their impoſtures, while theſe impoſtures at the ſame time rendered ſacred, in the eyes of the people, their ſlender ſtock of knowledge, and their hypocritital virtues. The members of theſe ſocieties purſued at firſt, almoſt with equal ardour, two very different objects: one, that of acquiring for themſelves new information; the other, that of employing ſuch as they had already acquired in deceiving the people, and gaining an aſcendancy over their minds.

Their ſages devoted their attention particularly to aſtronomy: and, as far as we can judge from the ſcattered remains of the monuments of their labours, they appear to have carried it to the higheſt poſſible pitch to which, without the aid of teleſcopes, without the aſſiſtance of mathematical theories ſuperior to the firſt elements, it can be ſuppoſed to arrive.

In reality, by means of a continued courſe of obſervations, an idea ſufficiently accurate of the motion of the ſtars may be acquired, by which to calculate and predict the phenomena of the heavens. Thoſe empirical laws, ſo much the eaſier attained as the attention becomes extended through a greater ſpace of time, did not indeed lead theſe firſt aſtronomers to the diſcovery of the general laws of the ſyſtem of the univerſe; but they ſufficiently ſupplied their place for every pur-

poſe that might intereſt the wants or curioſity of man, and ſerve to augment the credit of theſe uſurpers of the excluſive right of inſtructing him.

It ſhould ſeem that to them we are indebted for the ingenious idea of arithmetical ſcales, that happy mode of repreſenting all poſſible numbers by a ſmall quantity of ſigns, and of executing, by technical operations of a very ſimple nature, calculations which the human intellect, left to itſelf, could not have reached. This is the firſt example of thoſe contrivances that double the powers of the mind, by means of which it can extend indefinitely its limits, without its being poſſible to ſay to it, thus far ſhalt thou go, and no farther.

But they do not appear to have extended the ſcience of arithmetic beyond its firſt operations.

Their geometry, including what was neceſſary for ſurveying, as well as for the practice of aſtronomy, is bounded by that celebrated problem which Pythagoras carried with him into Greece, or diſcovered anew.

The conſtructing of machines they reſigned to thoſe by whom the machines were to be uſed. Some recitals, however, in which there is a mixture of fable, ſeem to indicate their having cultivated themſelves this branch of the ſciences, and employed it as one of the means of ſtriking upon the mind by a ſemblance of prodigy.

The laws of motion, the ſcience of the mechanical powers, attracted not their notice.

If they ſtudied medicine and ſurgery, that part eſpecially the object of which is the treatment of wounds, anatomy was neglected by them.

Their knowledge in botany, and in natural hiſtory, was confined to the articles uſed as remedies, and to ſome plants and minerals, the ſingular properties of which might aſſiſt their projects.

Their chymiſtry, reduced to the moſt ſimple proceſſes, without theory, without method, without analyſis, conſiſted in the making certain preparations, in the knowledge of a few ſecrets relative to medicine or the arts, or in the acquiſition of ſome noſtrums calculated to dazzle an ignorant multitude, ſubjected to chiefs not leſs ignorant than itſelf.

The progreſs of the ſciences they conſidered but as a ſecondary object, as an inſtrument of perpetuating or extending their power. They ſought Truth only to diffuſe errors; and it is not to be wondered they ſo ſeldom found her.

In the mean time, ſlow and feeble as was this progreſs of every kind, it would not have been attainable, if theſe men had not known the art of writing, the only way by which traditions can be rendered ſecure and permanent, and knowledge, in proportion as it increaſes, be communicated and tranſmitted to poſterity.

Accordingly, hieroglyphic writing was either one of their firſt inventions, or had been diſcovered prior to the

formation of caſts aſſuming to themſelves the prerogative of inſtruction.

As the view of theſe caſts was not to enlighten, but to govern the mind, they not only avoided communicating to the people the whole of their knowledge, but adulterated with errors ſuch portions as they thought proper to diſcloſe. They taught not what they believed to be true, but what they thought favourable to their own end.

Every thing which the people received from them had in it a ſtrange mixture of ſomething ſupernatural, ſacred, celeſtial, which led theſe men to be regarded as beings ſuperior to humanity, as inveſted with a divine character, as deriving from heaven itſelf information prohibited to the reſt of mankind.

Theſe men had therefore two doctrines, one for themſelves, the other for the people. Frequently even, as they were divided into many orders, each order reſerved to itſelf its own myſteries. All the inferior orders were at once both knaves and dupes; and it was only by a few adepts that all the mazes of this hypocritical ſyſtem were underſtood and developed.

No circumſtance proved more favourable to the eſtabliſhment of this double doctrine, than the changes which time, and the intercourſe and mixtures of nations, introduced into language. The double-doctrine men, preſerving the old language, or that of another nation,

thereby ſecured the advantage of having one that was underſtood only by themſelves.

The firſt mode of writing, which repreſented things by a painting more or leſs accurate, either of the thing itſelf or of an analogous object, giving place to a more ſimple mode, in which the reſemblance of theſe objects was nearly effaced, in which ſcarcely any ſigns were employed but ſuch as were in a manner purely conventional, the ſecret doctrine came to have a writing, as it had before a language to itſelf.

In the origin and upon the firſt introduction of language, almoſt every word is a metaphor, and every phraſe an allegory. The mind catches at once both the figurative and natural ſenſe; the word ſuggeſts at the ſame inſtant with the idea, the analogous image by which it has been expreſſed. But from the habit of employing a word in a figurative ſenſe, the mind alternately fixed upon that alone, heedleſs of the original meaning: and thus the figurative ſenſe of a word became gradually its proper and ordinary ſignification.

The prieſts by whom the firſt allegorical language was preſerved, employed it with the people, who were no longer capable of diſcovering its true meaning; and who, accuſtomed to take words in one acceptation only, that generally received, pictured to themſelves I know not what abſurd and ridiculous fables, in expreſſions that conveyed to the minds of the prieſts but a plain and ſimple truth. The ſame uſe was made by the prieſts of

their ſacred writing. The people ſaw men, animals, monſters, where the prieſts meant only to repreſent an aſtronomical phenomenon, an hiſtorical occurrence of the year.

Thus, for example, the prieſts, in their contemplations, invented, and introduced almoſt every where, the metaphyſical ſyſtem of a great, immenſe and eternal ALL, of which the whole of the beings that exiſted were only parts, of which the various changes obſervable in the univerſe were but modifications. The heavens ſtruck them in no other light than as groupes of ſtars diſperſed through the immenſity of ſpace, planets deſcribing motions more or leſs complicate, and phenomena purely phyſical reſulting from their reſpective poſitions. They affixed names to theſe conſtellations and planets, as well as to the fixed or moveable circles, invented with a view to repreſent their ſituation and courſe, and explain their appearances.

But the language, the memorials, employed in expreſſing theſe metaphyſical opinions, theſe natural truths, exhibited to the eyes of the people the moſt extravagant ſyſtem of mythology, and became the foundation of creeds the moſt abſurd, modes of worſhip the moſt ſenſeleſs, and practices the moſt ſhameful and barbarous.

Such is the origin of almoſt all the religions that are known to us, and which the hypocriſy or the extravagance of their inventors and their proſelytes afterwards loaded with new fables.

Theſe caſts ſeized upon education, that they might faſhion man to a more patient endurance of chains, embodied as it were with his exiſtence, and extirpate the poſſibility of his deſiring to break them. But, if we would know to what point, even without the aid of ſuperſtitious terrors, theſe inſtitutions, ſo deſtructive to the human faculties, can extend their baneful power, we muſt look for a moment to China; to that people who ſeem to have preceded all others in the arts and ſciences, only to ſee themſelves ſucceſſively eclipſed by them all; to that people whom the knowledge of artillery has not prevented from being conquered by barbarous nations; where the ſciences, of which the numerous ſchools are open to every claſs of citizens, alone lead to dignities, and at the ſame time, fettered by abſurd prejudices, are condemned to an internal mediocrity; laſtly, where even the invention of printing has remained an inſtrument totally uſeleſs in advancing the progreſs of the human mind.

Men, whoſe intereſt it was to deceive, ſoon felt a diſlike to the purſuit of truth. Content with the docility of the people, they conceived there was no need of further means to ſecure its continuance. By degrees they forgot a part of the truths concealed under their allegories; they preſerved no more of their ancient ſcience than was ſtrictly neceſſary to maintain the confidence of their diſciples; and at laſt they became themſelves the dupes of their own fables.

Then was all progreſs of the ſciences at a ſtand; ſome even of thoſe which had been enjoyed by preceding ages, were loſt to the generations that followed; and the human mind, a prey to ignorance and prejudice, was condemned, in thoſe vaſt empires, to a ſhameful ſtagnation, of which the uniform and unvaried continuance has ſo long been a diſhonour to Aſia.

The people who inhabit theſe countries are the only inſtance that is to be met with of ſuch civilization and ſuch decline. Thoſe who occupy the reſt of the globe either have been ſtopped in their career, and exhibit an appearance that again brings to our memory the infant days of the human race, or they have been hurried by events through the periods of which we have to illuſtrate the hiſtory.

At the epoch we are conſidering, theſe very people of Aſia had invented alphabetical writing, which they ſubſtituted in the place of hieroglyphics, probably after having employed that other mode, in which conventional ſigns are affixed to every idea, which is the only one that the Chineſe are at preſent acquainted with.

Hiſtory and reflection may throw ſome light upon the manner in which the gradual tranſition from hieroglyphics to this intermediary ſort of art, muſt have taken place; but nothing can inform us with preciſion either in what country, or at what time, alphabetical writing was firſt brought into uſe.

The diſcovery was in time introduced into Greece, among a people who have exerciſed ſo powerful and happy an influence on the progreſs of the human ſpecies, whoſe genius has opened all the avenues to truth, whom nature had prepared, whom fate had deſtined to be the benefactor and guide of all nations and all ages: an honour in which no other people has hitherto ſhared. One only nation has ſince dared to entertain the hope of preſiding in a revolution new in the deſtiny of mankind. And this glory both nature and a concurrence of events ſeem to agree in reſerving for her. But let us not ſeek to penetrate what an uncertain futurity as yet conceals from us.

# FOURTH EPOCH.

*Progreſs of the Human Mind in Greece, till the Diviſion of the Sciences about the Age of Alexander.*

THE Greeks, diſguſted with thoſe kings, who, calling themſelves the children of the Gods, diſgraced humanity by their paſſions and crimes, became divided into republics, of which Lacedemonia was the only one that acknowledged hereditary chiefs; but theſe chiefs were kept in awe by other magiſtracies, were ſubjected, like citizens, to the laws, and were weakened by the diviſion of royalty between the two branches of the family of the Heraclides.

The inhabitants of Macedonia, of Theſſaly, and of Epirus, allied to the Greeks by a common origin and the uſe of a ſimilar language, and governed by princes weak and divided among themſelves, though unable to oppreſs Greece, were yet ſufficient to preſerve it at the north from the incurſions of Scythian nations.

At the weſt, Italy, divided into ſmall and unconnected ſtates, could occaſion no apprehenſions; and already nearly the whole of Sicily, and the moſt delightful

parts of the ſouth of Italy, were occupied by Greek colonies, forming independent republics, but preſerving at the ſame time ties of filiation with their mother countries. Other colonies were eſtabliſhed in the iſlands of the Ægean ſea, and upon part of the coaſts of Aſia-Minor.

Accordingly the union of this part of the Aſiatic continent to the vaſt empire of Cyrus, was in the ſequel the only real danger that could threaten the independence of Greece, and the freedom of its inhabitants.

Tyranny, though more durable in ſome colonies, and in thoſe particularly the eſtabliſhment of which had preceded the extirpation of the royal families, could be conſidered only as a tranſient and partial evil, that inflicted miſery on the inhabitants of a few towns, but without influencing the general ſpirit of the nation.

The Greeks had derived from the eaſtern nations their arts, a part of their information, the uſe of alphabetical writing, and their ſyſtem of religion: but it was in conſequence of the intercourſe eſtabliſhed between herſelf and theſe nations by exiles, who ſought an aſylum in Greece, and by Greek travellers, who brought back with them from the Eaſt knowledge and errors.

The ſciences, therefore, could not become in this country the occupation and patrimony of an individual caſt. The functions of the prieſts were confined to the worſhip of the Gods. Genius might diſplay all its energies, without being fettered by the pedantic obſervances,

the ſyſtematic hypocriſy of a ſacerdotal college. All men poſſeſſed an equal right to the knowledge of truth. All might engage in the purſuit of it, and communicate it to all, not in ſcraps or parcels, but in its whole extent.

This fortunate circumſtance, ſtill more than political freedom, wrought in the human mind, among the Greeks, an independance, the ſureſt pledge of the rapidity and greatneſs of its future progreſs.

In the mean time their learned men, their ſages, as they were called, but who ſoon took the more modeſt appellation of philoſophers, or friends of ſcience and wiſdom, wandered in the immenſity of the two vaſt and comprehenſive plan which they had embraced. They were deſirous of penetrating both the nature of man, and that of the Gods; the origin of the world, as well as of the human race. They endeavoured to reduce all nature to one principle only, and the phenomena of the univerſe to one law. They attempted to include, in a ſingle rule of conduct, all the duties of morality, and the ſecret of true happineſs.

Thus, inſtead of diſcovering truths, they forged ſyſtems; they neglected the obſervation of facts, to purſue the chimeras of their imagination; and being no longer able to ſupport their opinions with proofs, they ſought to defend them by ſubtleties.

Geometry and aſtronomy, however, were cultivated with ſucceſs by theſe men. Greece owed to them the firſt elements of theſe ſciences, and even ſome new truths,

or at leaſt the knowledge of ſuch as they had brought with them from the Eaſt, not as eſtabliſhed creeds, but as theories, of which they underſtood the principles and proofs.

We even perceive, in the midſt of the darkneſs of thoſe ſyſtems, two happy ideas beam forth, which will again make their appearance in more enlightened ages.

Democritus conſidered all the phenomena of the univerſe as the reſult of the combinations and motion of ſimple bodies, of a fixed and unalterable form, having received an original impulſe, and thence derived a quantity of action that undergoes modifications in the individual atoms, but that in the entire maſs continues always the ſame.

Pythagoras was of opinion that the univerſe was governed by a harmony, the principles of which were to be unfolded by the properties of numbers; that is, that the whole phenomena of nature depended upon general laws capable of being aſcertained by calculation.

In theſe two doctrines we readily perceive the bold ſyſtems of Deſcartes, and the philoſophy of Newton.

Pythagoras either diſcovered by his own meditation, or learned from the prieſts of Egypt or of Italy, the actual diſpoſition of the heavenly bodies, and the true ſyſtem of the world. This he communicated to the Greeks. But the ſyſtem was too much at variance with the teſtimony of the ſenſes, too oppoſite to the vulgar opinions, for the feeble proofs by which it could then be

ſupported to gain much hold upon the mind. Accordingly it was confined to the Pythagorean ſchool, and afterwards forgotten with that ſchool, again to appear at the cloſe of the ſixteenth century, ſtrengthened with more certain proofs, by which it now triumphed not only over the repugnance of the ſenſes, but over the prejudices of ſuperſtition, ſtill more powerful and dangerous.

The Pythagorean ſchool was chiefly prevalent in Upper Greece, where it formed legiſlators, and intrepid defenders of the rights of mankind. It fell under the power of the tyrants, one of whom burnt the Pythagoreans in their own ſchool. This was ſufficient, no doubt, to induce them not to abjure philoſophy, not to abandon the cauſe of the people, but to bear no longer a name become ſo dangerous, or obſerve forms that would ſerve only to wake the lion rage of the enemies of liberty and of reaſon.

A grand baſis of every kind of ſound philoſophy is to form for each ſcience a preciſe and accurate language, every term of which ſhall repreſent an idea exactly determined and circumſcribed; and to enable ourſelves to determine and circumſcribe the ideas with which the ſcience may be converſant, by the mode of a rigorous analyſis.

The Greeks on the contrary took advantage of the corruptions of their common language to play upon the meaning of words, to embarraſs the mind by contemptible equivoques, and lead it aſtray by expreſſing ſucceſſively

different ideas by the ſame ſign: a practice which gave acuteneſs to the mind, at the ſame time that it weakened its ſtrength againſt chimerical difficulties. Thus this philoſophy of words, by filling up the ſpaces where human reaſon ſeems to ſtop before ſome obſtacle above its ſtrength, did not aſſiſt immediately its progreſs and advancement, but it prepared the way for them; as we ſhall have farther occaſion to obſerve.

The courſe of philoſophy was ſtopped from its firſt introduction by an error at that time indeed excuſable. This was the fixing the attention upon queſtions incapable perhaps for ever of being ſolved; ſuffering the mind to be led away by the importance or ſublimity of objects, without thinking whether the means exiſted of compaſſing them; wiſhing to eſtabliſh theories, before facts had been collected, and to frame the univerſe, before it was yet known how to ſurvey it. Accordingly we ſee Socrates, while he combated the ſophiſts and expoſed their ſubtleties to ridicule, crying to the Greeks to recal to the earth this philoſophy which had loſt itſelf in the clouds. Not that he deſpiſed either aſtronomy, or geometry, or the obſervation of the phenomena of nature; not that he entertained the puerile and falſe idea of reducing the human mind to the ſtudy of morality alone: on the contrary, it was to his ſchool and his diſciples that the mathematical and phyſical ſciences were indebted for their progreſs; in the ridicule attempted to be thrown upon him in theatrical repreſentations, the reproach

which afforded moſt pleaſantry was that of his cultivating geometry, ſtudying meteors, drawing geographical charts, and making experiments upon burning-glaſſes, of which it is pleaſant to remark, the earlieſt mention that has been tranſmitted to us, we owe to a buffoonery of Ariſtophanes.

Socrates merely wiſhed by his advice to induce men to confine themſelves to objects which nature has placed within their reach; to be ſure of every ſtep already taken before they attempted any new one, and to ſtudy the ſpace that ſurrounded them, before they precipitated themſelves at random into an unknown ſpace.

The death of this man is an important event in the hiſtory of the human mind. It is the firſt crime that the war between philoſophy and ſuperſtition conceived and brought forth.

The burning of the Pythagorean ſchool had already ſignalized the war, not leſs ancient, not leſs eager, of the oppreſſors of mankind againſt philoſophy. The one and the other will continue to be waged as long as there ſhall exiſt prieſts or kings upon the earth; and theſe wars will occupy a conſpicuous place in the picture that we have ſtill to delineate.

Prieſts ſaw with grief the appearance of men, who, cultivating the powers of reaſon, aſcending to firſt principles, could not but diſcover all the abſurdity of their dogmas, all the extravagance of their ceremonies, all the deluſion and fraud of their oracles and prodigies.

This diſcovery they were afraid theſe philoſophers would communicate to the diſciples that frequented their ſchools; from whom it might paſs to all thoſe who, to obtain authority or credit, were obliged to pay attention to the improvement of their minds; and thus the prieſtly empire be reduced to the moſt ignorant claſs of the people, which might at laſt be itſelf alſo undeceived.

Hypocriſy, alarmed and terrified, haſtened to bring accuſations, againſt the philoſophers, of impiety to the Gods, that they might not have time to teach the people that thoſe Gods were the work of their prieſts. The philoſophers thought to eſcape perſecution by adopting, in imitation of the prieſts themſelves, the practice of a double doctrine, and they confided to ſuch of their diſciples only whoſe fidelity had been proved, doctrines that too openly offended vulgar prejudices.

But the prieſts repreſented to the people the moſt ſimple truths of natural phiſoſophy as blaſphemies; and Anaxagoras was proſecuted for having dared to aſſert, that the ſun was larger than Peloponneſus.

Socrates could not eſcape their fury. There was in Athens no longer a Pericles to watch over the ſafety of genius and of virtue. Beſides, Socrates was ſtill more culpable. His enmity to the ſophiſts, and his zeal to bring back the attention of miſguided philoſophy to the moſt uſeful objects, announced to the prieſts that truth alone was the end he had in view; that he did not wiſh to enforce upon men a new ſyſtem, and ſubject

their imagination to his; but that he was desirous of teaching them to made use of their own reason: and of all crimes this is what sacerdotal pride knows least how to pardon.

It was at the very foot of the tomb of Socrates that Plato directed the lessons which he had received from his master.

His enchanting stile, his brilliant imagination, the cheerful or dignified colouring, the ingenious and happy traits, that, in his dialogues, dispel the dryness of philosophical discussion; the maxims of a mild and pure morality which he knew how to infuse into them; the art with which he brings his personages into action, and preserves to each his distinct character; all those beauties, which time and the revolutions of opinion have been unable to tarnish, must doubtless have obtained a favourable reception for the visionary ideas that too often form the basis of his works, and that abuse of words which his master had so much censured in the sophists, but from which he could not preserve the first of his disciples.

In reading these dialogues we are astonished at their being the production of a philosopher who, by an inscription placed on the door of his school, forbad the entrance of any one who had not studied geometry; and that he, who maintains with such confidence systems so far fetched and so frivilous, should have been the founder of a sect by whom, for the first time, the foundations of the certainty of human knowledge were

ſubjected to a ſevere examination, and even others made to tremble that a more enlightened reaſon might have been induced to reſpect.

But the contradiction diſappears when we conſider that in his dialogues Plato never ſpeaks in his own perſon; that Socrates, his maſter, is made to expreſs himſelf with the modeſty of doubt; that the ſyſtems are exhibited in the names of thoſe who were, or whom Plato ſuppoſed to be, the authors of them; that hereby theſe dialogues are a ſchool of pyrrhoniſm, and that Plato has known how to diſplay in them at once the adventurous imagination of a learned man, amuſing himſelf with combining and diſſecting ſplendid hypotheſes, and the reſerve of a philoſopher, giving ſcope to his fancy, but without ſuffering himſelf to be hurried away by it; becauſe his reaſon, armed with a ſalutary doubt, had wherewithal to defend itſelf againſt illuſions, however ſeducing might be their charms.

The ſchools, in which were perpetuated the doctrine and eſpecially the principles and forms of a firſt inſtitutor, to which however their reſpective ſucceſſors by no means obſerved a ſervile adherence, theſe ſchools poſſeſſed the advantage of uniting together by the ties of a liberal fraternity, men intent upon penetrating the ſecrets of nature. If the opinion of the maſter had frequently an influence in them that ought to belong only to the province of reaſon, and the progreſs of knowledge was

thereby ſuſpended; yet did they ſtill more contribute to its ſpeedy and extenſive propagation, at a time when, printing being unknown, and manuſcripts exceedingly rare, theſe inſtitutions, the fame of which attracted pupils from every part of Greece, were the only powerful means of cheriſhing in that country a taſte for philoſophy, and of diſſeminating new truths.

The rival ſchools contended with a degree of animoſity that produced a ſpirit of party or ſect; and not ſeldom was the intereſt of truth ſacrificed to the ſucceſs of ſome tenet, in which every member of the ſect conſidered his pride in a manner as concerned. The perſonal paſſion of making converts corrupted the more generous one of enlightening mankind. Bnt at the ſame time, this rivalſhip kept the mind in a ſtate of activity that was not without its uſe. The continual ſight of ſuch diſputes, the intereſt that was taken in theſe combats of opinion, awakened and attached to the ſtudy of philoſophy a multitude of men, whom the mere love of truth could neither have allured from their buſineſs and pleaſure, nor even have rouſed from their indolence.

In ſhort, as theſe ſchools, theſe ſects, which the Greeks had the wiſdom never to introduce into the public inſtitutions, remained perfectly free; as every one had the power of opening another ſchool, or forming a new ſect, at his pleaſure, there was no cauſe to

apprehend that abaſement of reaſon, which, with the majority of other nations, was an inſurmountable obſtacle to the advancement of the human mind.

Let us conſider what was the influence of the philoſophers of Greece on the underſtanding, manners, laws and governments of that country; an influence that muſt be aſcribed in great meaſure to their not having, and even not wiſhing to have, a political exiſtence; to its being held as a rule of conduct common to all their ſects, voluntarily to keep aloof from public affairs; and laſtly, to their affecting to diſtinguiſh themſelves from other men by their lives, as well as their opinions.

In delineating theſe different ſects, we ſhall attend leſs to the ſyſtems, and more to the principles of their philoſophy; we ſhall not attempt, as has frequently been done, to exhibit a preciſe view of the abſurd doctrines which a language become almoſt unintelligible conceals from us; but ſhall endeavour to ſhew by what general errors they were ſeduced into thoſe deceitful paths, and to find the origin of theſe in the natural courſe of the human mind.

Above all things we ſhall be careful to diſplay the progreſs of thoſe ſciences that really deſerved the appellation, and the ſucceſſive improvements that were introduced into them.

At this epoch philoſophy embraced them all, medicine excepted, which was already ſeparated from it. The writings of Hippocrates will ſhew us what was at

that period the ſtate of this ſcience, as well as of thoſe naturally connected with it, but which had yet no exiſtence diſtinct from that connection.

The mathematical ſciences had been cultivated with ſucceſs in the ſchools of Thales and of Pythagoras. Meanwhile they roſe there very little above the point at which they had ſtopped in the ſacerdotal colleges of the eaſtern nations. But from the birth of Plato's ſchool they ſoared infinitely above that barrier, which the idea of confining them to an immediate utility and practice had erected.

This philoſopher was the firſt who ſolved the problem of the duplication of the cube, by the hypotheſis, indeed, of a continued motion; but the proceſs was ingenious, and ſtrictly accurate. His early diſciples diſcovered the conic ſections, and demonſtrated their principal properties; thereby opening upon the human mind that vaſt horiſon of knowledge, where, as long as the world ſhall endure, it may exerciſe its powers without ceaſing, while every ſtep the horiſon retires as the mind advances.

The ſciences connected with politics did not derive from philoſophy alone their progreſs among the Greeks. In theſe ſmall republics, jealous of preſerving both their independence and their liberty, the practice was almoſt generally prevalent of confiding to one man, not the power of making laws, but the function of digeſting and preſenting them to the people, by whom they were

examined, and from whom they received their direct ſanction.

Thus the people impoſed a taſk on the philoſopher, whoſe wiſdom or whoſe virtues had recommended him to their confidence, but they conferred on him no authority; they exerciſed alone and of themſelves what we have ſince called by the name of legiſlative power. But the practice, ſo fatal, of calling ſuperſtition to the aid of political inſtitutions, has too often corrupted the execution of an idea ſo admirably fitted to give that ſyſtematic unity to the laws of a country which alone can render their operation ſure and eaſy, as well as maintain the duration of them. Nor had politics yet acquired principles ſufficiently invariable not to fear that the legiſlators might introduce into theſe inſtitutions their prejudices and their paſſions.

Their object could not be, as yet, to found upon the baſis of reaſon, upon the rights which all men have equally received from nature, upon the maxims of univerſal juſtice, the ſuperſtructure of a ſociety of men equal and free; but merely to eſtabliſh laws by which the hereditary members of a ſociety, already exiſting, might preſerve their liberty, live ſecure from injuſtice, and, by exhibiting an impoſing appearance to their neighbours, continue in the enjoyment of their independence.

As it was ſuppoſed that theſe laws, almoſt univerſally connected with religion, and conſecrated by oaths,

were to endure for ever, it was leſs an object of attention to ſecure to a people the means of effecting, in a peaceable manner, their reform, than to guard from every poſſible change ſuch as were fundamental, and to take care that the reforms of detail neither incroached upon the ſyſtem, nor corrupted the ſpirit of them.

Such inſtitutions were ſought for as were calculated to cheriſh and give energy to the love of country, in which was included a love of its legiſlation and even uſages; ſuch an organization of powers, as would ſecure the execution of the laws againſt the negligence or corruption of magiſtrates, and the reſtleſs diſpoſition of the multitude.

The rich, who alone were in a capacity of acquiring knowledge, by ſeizing on the reins of authority might oppreſs the poor, and compel them to throw themſelves into the arms of a tyrant. The ignorance and fickleneſs of the people, and its jealouſy of powerful citizens, might ſuggeſt to ſuch citizens both the deſire and the means of eſtabliſhing ariſtocratic deſpotiſm, or of ſurrendering an enfeebled ſtate to the ambition of its neighbours. Obliged to guard at once againſt both theſe rocks, the Greek legiſlators had recourſe to combinations more or leſs happy, but always bearing the ſtamp of this ſagacity, this artifice, which accordingly characteriſed the general ſpirit of the nation.

It would be difficult to find in modern republics, or even in the plans ſketched by philoſophers, a ſingle

inſtitution of which the Greek republics did not ſuggeſt the outlines, or furniſh the example. For, in the Amphictyonic league, as well as in that of the Etolians, Arcadians, Achæans, we have inſtances of federal conſtitutions, of a union more or leſs cloſe; and there were eſtabliſhed a leſs barbarous right of nations, and more liberal rules of commerce between theſe different people, connected by a common origin, by the uſe of the ſame language, and by a ſimilarity of manners, opinions and religious perſuaſions.

The mutual relations of agriculture, induſtry and commerce, with the laws and conſtitution of a ſtate, their influence upon its proſperity, power, freedom, could not have eſcaped the obſervation of a people ingenious and active, and at the ſame time watchful of the public intereſt: and accordingly among them are perceived the firſt traces of that ſcience, ſo comprehenſive and uſeful, known at preſent by the name of political economy.

The obſervation alone of eſtabliſhed governments was therefore ſufficient ſpeedily to convert politics into an extenſive ſcience. Thus in the writings even of the philoſophers, it is a ſcience rather of facts, and, if I may ſo ſpeak, empirical, than a true theory founded upon general principles, drawn from nature, and acknowledged by reaſon. ſuch is the point of view in which we ought to regard the political ideas of Ariſtotle and

Plato, if we would diſcover their meaning, and form of them a juſt eſtimate.

Almoſt all the Greek inſtitutions ſuppoſe the exiſtence of ſlavery, and the poſſibility of uniting together, in a public place, the whole community of citizens: two moſt important diſtinctions, of which we ought never to loſe ſight, if we would judge rightly of the effect of thoſe inſtitutions, particularly on the extenſive and populous nations of modern times. But upon the firſt we cannot reflect without the painful idea, that at that period the moſt perfect forms of government had for object the liberty or happineſs of at moſt but half the human ſpecies.

With the Greeks, education was an important part of polity. Men were formed for their country, much more than for themſelves, or their family. This principle can only be embraced by commonities little populous, in which it is more pardonable to ſuppoſe a national intereſt, ſeparate from the common intereſt of humanity. It is practicable only in countries where the moſt painful labours of culture and of the arts are performed by ſlaves. This branch of education was reſtricted almoſt entirely to ſuch bodily exerciſes, ſuch manners and habits as were calculated to excite an excluſive patriotiſm; the other branches were acquired, as a matter of free choice in the ſchools of the philoſophers or rhetoricians, and the ſhops of the artiſts; and this freedom was a farther cauſe of the ſuperiority of the Greeks.

In their polity, as in their philoſophy, a general principle is obſervable, to which hiſtory ſcarcely furniſhes any exceptions: they aimed leſs in their laws at extirpating the cauſes of an evil, than deſtroying its effects, by oppoſing theſe cauſes one to another; they wiſhed rather to take advantage of prejudices and vices, than to diſperſe or ſuppreſs them; they attended more frequently to the means by which to deform and brutalize man, to inflame, to miſlead his ſenſibility, than to refine and purify the inclinations and deſires which are the neceſſary reſult of his moral conſtitution: errors occaſioned by the more general one of miſtaking for the man of nature, him who exhibited in his character the actual ſtate of civilization, that is to ſay, man corrupted by prejudices, by the intereſt of factitious paſſions, and by ſocial habits.

This obſervation is of the more importance, and it will be the more neceſſary to develope its origin, in order the better to deſtroy it, as it has been tranſmitted to our own age, and ſtill too often corrupts both our morals and our politics.

If we compare the legiſlation, and particularly the form and rules of judicature in the Greek, or in the eaſtern nations, we ſhall find that, in ſome, the laws are a yoke to which force has bowed the necks of ſlaves; in others, the conditions of a common compact between the members of the ſociety. In ſome the object of legal forms is, that the will of the maſter be executed; in

others that the liberty of the citizens be not oppreſſed. In ſome the law is made for the party that impoſes it; in others for the party that is to ſubmit to it. In ſome the fear of the law is enforced, in others the love of it inculcated. And theſe diſtinctions we alſo find in modern nations, between the laws of a free people, and thoſe of a country of ſlaves. In Greece we ſhall find that man poſſeſſed at leaſt a conſciouſneſs of his rights, if he did not yet know them, if he could not fathom the nature, and embrace and circumſcribe the extent of them.

At this epoch, of the firſt dawn of philoſophy and firſt advance of the ſciences among the Greeks, the fine arts roſe to a degree of perfection known at that time to no other people, and ſcarcely equalled ſince by almoſt any nation. Homer lived at the period of thoſe diſſentions which accompanied the fall of the tyrants, and the formation of republics. Sophocles, Euripides, Pindar, Thucydides, Demoſthenes, Phidias, Apelles, were the contemporaries of Socrates or of Plato.

We ſhall give a delineation of the progreſs of thoſe arts; we ſhall enquire into its cauſes; we ſhall diſtinguiſh between what may be conſidered as a perfection of the art itſelf, and what is to be aſcribed only to be happy genius of the artiſt: a diſtinction calculated to deſtroy thoſe narrow limits to which the improvement of the fine arts has been reſtricted. We ſhall explain the influence that forms of government, ſyſtems of legiſlation, and the ſpirit of religious obſervances have exerciſed

on their progreſs, and ſhall examine what they have derived from the advances of philoſophy, and what philoſophy itſelf has derived from them.

We ſhall ſhew that liberty, arts, knowledge, have contributed to the ſuavity and melioration of manners; that the vices of the Greeks, ſo often aſcribed to their civilization, were thoſe of ruder ages, and which the acquirements we have mentioned have in all inſtances qualified, when they have proved unable to extirpate them. We ſhall demonſtrate that the eloquent declamations which have been made againſt the arts and ſciences, are founded upon a miſtaken application of hiſtory; and that, on the contrary, the progreſs of virtue has ever accompanied that of knowledge, as the progreſs of corruption has always followed or announced its decline.

## FIFTH EPOCH.

*Progreſs of the Sciences, from their Diviſion to their Decline.*

PLATO was ſtill living when Ariſtotle, his diſciple, opened, in Athens itſelf, a ſchool, the rival of that of his maſter.

He not only embraced all the ſciences, but applied the method obſerved in philoſophy to the arts of eloquence and poetry. He was the firſt whoſe daring genius conceived the propriety of extending this method to every thing attainable by human intelligence; ſince, as this intelligence exerciſed in all caſes the ſame faculties, it ought invariably to be governed by the ſame laws.

The more comprehenſive was the plan he formed, the more he felt the neceſſity of ſeparating the different parts of it, and of fixing with greater preciſion the limits of each. And from this epoch the majority of philoſophers, and even whole ſects, are ſeen confining their attention to ſome only of thoſe parts.

The mathematical and phyſical ſciences formed of themſelves a grand diviſion. As they were founded upon calculation and the obſervance of the phenomena

of nature, as what they taught was independent of the opinions which embroiled the ſects, they ſeparated themſelves from philoſophy, over which theſe ſects ſtill reigned. They accordingly became the ſtudy of the learned, who had the wiſdom almoſt univerſally to keep aloof from the diſputes of the ſchools, which were conducted in a manner calculated rather to promote the tranſient fame of the profeſſors, than aid the progreſs of philoſophy itſelf. And ſoon this word ceaſed to be employed, except for the purpoſe of expreſſing the general principles of the ſyſtem of the world, metaphyſics, logic, and morals, of which the ſcience of politics formed a part.

Fortunately the era of this diviſion preceded the period in which Greece, after long ſtruggles, was deſtined to loſe her freedom. The ſciences found, in the capital of Egypt, an aſylum, which, by the deſpots who governed it, would probably have been refuſed to philoſophy. But as the princes derived no inconſiderable portion of their riches and power from the united commerce of the Mediterranean and Aſiatic ſeas, it was their intereſt to encourage ſciences uſeful to navigation and commerce.

Accordingly, they eſcaped the ſpeedy decline that was ſoon experienced by philoſophy, the ſplendour of which vaniſhed with the departure of liberty. The tyranny of the Romans, ſo regardleſs of the progreſs of knowledge, did not extend to Egypt till a late period,

and when the town of Alexandria was become neceſſary to the ſubſiſtence of Rome. By its population, its wealth, the great influx of ſtrangers, the eſtabliſhments formed by the Ptolemies, and which the conquerors did not give themſelves the trouble to deſtroy, this town, the centre of commerce, and already poſſeſſing wherewith to be the metropolis of the ſciences, was ſufficient of itſelf to the preſervation of their ſacred flame.

The ſect of Academics, in which, from its origin, the mathematics had been cultivated, and which confined its philoſophical inſtruction almoſt entirely to proving the utility of doubt, and aſcertaining the narrow limits of certainty, muſt of courſe have been a ſect of men of learning; and as the doctrine had nothing in it calculated to give alarm to deſpots, it flouriſhed in the ſchool of Alexandria.

The theory of conic ſections, with the method of employing it, whether for the conſtructing of geometrical loci, or for the ſolution of problems, and the diſcovery of ſome other curves, extended the limits, hitherto ſo narrow, of the ſcience of geometry.

Archimedes diſcovered the quadrature of the parabola, and meaſured the ſurface of the ſphere. Theſe were the firſt advances in the theory of limits which determines the ultimate value of a quantity, or, in other words, the value to which the quantity in an infinite progreſſion inceſſantly approaches, but never attains; that theory which teaches how to determine the ratios of evaneſ-

cent quantities, and by other proceſſes to deduce from theſe ratios the propoſitions of finite magnitudes: in a word, that very calculus which the moderns, with more pride than juſtice, have termed the calculus of infinities. It was Archimedes who firſt determined the proportion of the diameter of a circle to its circumference in numbers nearly true; who taught us how to obtain values approaching nearer and nearer to accuracy, and made known the methods of approximation, that happy remedy for the defects of the known methods, and frequently of the ſcience itſelf.

He may, in ſome reſpect, be conſidered as the father of rational or theoretical mechanics. To him we are indebted for the theory of the lever, as well as the diſcovery of that principle of hydroſtatics, that a body immerſed in any fluid, loſes a portion of its weight equal to the maſs of fluid it has diſplaced.

The ſcrew that bears his name, his burning glaſſes, the prodigies of the ſiege of Syracuſe, atteſt his ſkill in the art of conſtructing mechanical inſtruments, which the learned had neglected, becauſe the principles of the theory at that time known were inadequate to the attainment. Theſe grand diſcoveries, theſe new ſciences, place Archimedes among theſe happy geniuſes whoſe life forms an epoch in the hiſtory of man, and whoſe exiſtence may be conſidered as one one of the muniſicent gifts of nature.

It is in the ſchool of Alexandria that we find the firſt

traces of algebra; that is to ſay, of the calculation of quantities conſidered ſimply as ſuch. The nature of the problems propoſed and reſolved in the work of Diophantus, made it neceſſary that numbers ſhould be conſidered as having a general value, undetermined in their particular relations, and ſubject only to certain conditions.

But this ſcience had not then, as at preſent, its appropriate ſigns, methods and technical operations. The general value of quantities was repreſented by words; and it was only by means of a ſeries of reaſonings that the ſolution of problems was diſcovered and developed.

The obſervations of the Chaldeans, tranſmitted to Ariſtotle by Alexander, accelerated the progreſs of aſtronomy. The moſt brilliant portion of them was due to the genius of Hipparchus. And if, after him in aſtronomy, as after Archimedes in geometry and mechanics, we no longer perceive thoſe diſcoveries and acquiſitions which change, as it were, the whole face of a ſcience, they yet for a long time continued to improve, expand, and enrich themſelves by the truths of detail.

In his hiſtory of animals, Ariſtotle had laid down the principles and furniſhed an excellent model for obſerving with accuracy, and deſcribing according to ſyſtem, the objects of nature, as well as for claſſing thoſe obſervations, and catching with readineſs the general reſults which they exhibited. The hiſtory of plants and of minerals were treated afterwards by others, but with inferior preciſion, and with views leſs extenſive and leſs philoſophical.

The progreſs of anatomy was very ſlow, not only becauſe religious prejudices would not admit of the diſſection of dead bodies, but from the vulgar opinion which regarded the touch of ſuch bodies as a ſort of moral defilement.

The medinal ſyſtem of Hippocrates was nothing more than a ſcience of obſervation, which as yet had led only to empirical methods. The ſpirit of ſect, and the love of hypothetical poſitions ſoon infected it. But if the number of errors was greater than that of new truths, if the prejudices or ſyſtems of the practitioners did more harm than their obſervations were calculated to do good, yet it cannot be denied that the ſcience made during this epoch, a real, though very ſlight progreſs.

Ariſtotle introduced into natural philoſophy neither the accuracy nor the prudent reſerve which characteriſe his hiſtory of animals. He paid tribute to the cuſtoms of his age, to the taſte of the ſchools, by diſfiguring it with thoſe hypothetical data, which, from their vague nature, explain every thing with a ſort of readineſs, becauſe they are able to explain nothing with preciſion.

Beſides, obſervation alone was not enough; experiments were neceſſary: theſe demanded inſtruments; and it appears that at that time men had not ſufficiently collected facts, had not examined them with the proper minuteneſs, to feel the want, to conceive the idea of this mode of interrogating nature, and obliging her to anſwer us.

At this epoch alſo, the hiſtory of the progreſs of natural philoſophy is confined to a ſmall number of truths, acquired by chance, and derived from obſervations furniſhed by the practice of the arts, rather than from the reſearches of the learned. Hydraulics, and eſpecially optics, preſent us with a harveſt ſomewhat leſs ſterile; but theſe alſo conſiſt rather of facts, which were remarked becauſe they fell in the way and forced attention, than of theories or phyſical laws diſcovered by experiments, or obtained by meditation and ſtudy.

Agriculture had hitherto been confined to the ſimple routine and a few regulations, which prieſts, in tranſmitting them to the people, had corrupted with their ſuperſtition. It became with the Greeks, and ſtill more with the Romans, an important and reſpected art; and men of greateſt learning employed themſelves in collecting its uſages and precepts. Theſe collections of facts, preciſely deſcribed and judiciouſly arranged, were uſeful to enlighten the practical cultivator, and to extend ſuch methods as had proved valuable; but the age of experiment and regular deduction was ſtill very far off.

The mechanic arts began to connect themſelves with the ſciences. Philoſophers examined the labours, ſought the origin, and ſtudied the hiſtory of theſe arts; at the ſame time they deſcribed the proceſſes and fruits of thoſe which were cultivated in different countries, and were induced to collect together their obſervations, and tranſmit them to poſterity.

Thus Pliny, in the comprehenſive plan of his natural hiſtory, includes man, nature and the arts. This work is a valuable and complete inventory of what at that time conſtituted the true ſtores of the human mind: nor can his claims to our gratitude be ſuperſeded by the charge, however merited, of his having collected with too little diſcrimination and too much credulity, what the ignorance or lying vanity of hiſtorians preſented to his avidity, not to be ſatiated, of knowing every thing.

In the midſt of the decline of Greece, Athens, which, in the days of its power, had honoured philoſophy and letters, owed to them, in its turn, the preſerving for a longer period ſome remains of its ancient ſplendour. In its tribune, indeed, the deſtinies of Greece and Aſia were no longer decided; it was, however, in the ſchools of Athens that the Romans acquired the ſecrets of eloquence; and it was at the feet of Demoſthenes' lamp that the firſt of their orators was formed.

The academy, the lyceum, the portico, the gardens of Epicurus, were the nurſery and principal ſchool of the four ſects that diſputed the empire of philoſophy.

It was taught in the academy, that every thing is doubtful; that man can attain, as to any object, neither abſolute certainty nor a true comprehenſion; in fine, and it was difficult to go farther, that he could not be ſure of this very impoſſibility of knowing any thing, and that it was proper to doubt even of the neceſſity of doubting.

The opinions of different philoſophers, were explained, defended and oppoſed in this ſchool, but merely as hypotheſes calculated to exerciſe the mind and illuſtrate more fully, by the uncertainty which accompanied theſe diſputes, the vanity of human knowledge and abſurdity of the dogmatical confidence of the other ſects.

This doctrine, if it go no farther than to diſcountenance reaſoning upon words to which we can affix no clear and preciſe ideas; than to proportion our belief in any propoſition to the degree of probability it bears; than to aſcertain, as to every ſpecies of knowledge, the bounds of certainty we are able to acquire,—this ſcepticiſm is then rational; but when it extends to demonſtrated truths; when it attacks the principles of morality, it becomes either weakneſs or infanity; and ſuch is the extreme into which the ſophiſts have fallen, who ſucceeded in the academy the firſt diſciples of Plato.

We ſhall follow the ſteps of theſe ſceptics, and exhibit the cauſe of their errors. We ſhall examine what, in the extravagance of their doctrine, is to be aſcribed to the paſſion, ſo prevalent, of diſtinguiſhing themſelves by whimſical opinions; and ſhall ſhew, that, though ſufficiently refuted by the inſtinct of other men, by the inſtinct which directed theſe ſophiſts themſelves in the ordinary conduct of life, they were neither properly refuted, nor even underſtood, by the philoſophers of the day.

Meanwhile this ſceptical mania did not poſſeſs the whole ſect of academics; and the doctrine of an eternal idea, juſt, comely, honeſt, independent of the intereſts and conventions of men, and even of their exiſtence, an idea that, imprinted on the ſoul, becomes the principle of duty and the law of our actions, this doctrine, derived from the Dialogues of Plato, was ſtill inculcated in his ſchool, and conſtituted the baſis of moral inſtruction.

Ariſtotle was no better ſkilled than his maſter in the art of analyſing ideas; that is, of aſcending ſtep by ſtep to the moſt ſimple ideas that have entered into their combination, of obſerving the formation of theſe ſimple ideas themſelves, of following in theſe operations the regular procedure of the mind, and developement of its faculties.

His metaphyſics, like thoſe of the other philoſophers, conſiſted of a vague doctrine, founded ſometimes upon an abuſe of words, and ſometimes upon mere hypotheſes.

To him, however, we owe that important truth, that firſt ſtep in the ſcience of the human mind, that OUR IDEAS, EVEN SUCH AS ARE MOST ABSTRACT, MOST STRICTLY INTELLECTUAL, ſo to ſpeak, HAVE THEIR ORIGIN IN OUR SENSATIONS. But this truth he failed to ſupport by any demonſtration. It was rather the intuitive perception of a man of genius, than the reſult of a ſeries of obſervations accurately analyſed, and ſyſtematically combined, in order to derive from

them ſome general truth. Accordingly, this germ, caſt in an ungrateful ſoil, produced no uſeful fruit till after a period of more than twenty centuries.

Ariſtotle, in his dialectics, having reduced all demonſtrations to a train of arguments drawn up in a ſyllogiſtical form, and then divided all imaginable propoſitions under four heads, teaches us to diſcover, among the poſſible combinations of propoſitions of theſe four claſſes in collections of three and three, thoſe which anſwer to the nature of concluſive ſyllogiſms, and may be admitted without apprehenſion. In this way we may judge of the cogency or weakneſs of an argument, merely by knowing to what claſs it belongs: and thus the art of right reaſoning is ſubjected in ſome meaſure to technical rules.

This ingenious idea has hitherto remained uſeleſs; but perhaps it may one day become the leading ſteps toward a perfection which the art of reaſoning and diſcuſſion ſeems ſtill to expect.

Every virtue, according to Ariſtotle, is placed between two vices, of which one is its defect, and the other its exceſs; it is only, as it were, one of thoſe natural inclinations which reaſon equally forbids us too ſtrongly to reſiſt, and too ſlaviſhly to obey.

This general principle muſt have been ſuggeſted to him by one of thoſe vague ideas of order and conformity, ſo common at that time in philoſophy; but he proved its truth, by applying it to the vocabulary of words which,

in the Greek language, expreſſed what were called the virtues.

About the ſame period, two new ſects, founding their ſyſtems of morality, at leaſt in appearance, upon two contrary principles, divided the general mind, extended their influence beyond the limits of their ſchools, and haſtened the fall of Greek ſuperſtition; but, unhappily a ſuperſtition more gloomy, more dangerous, more inimical to knowledge, was ſoon to ſucceed it.

The ſtoics made virtue and happineſs conſiſt in the poſſeſſion of a ſoul alike inſenſible to pleaſure and to pain, free from all the paſſions, ſuperior to every fear, every weakneſs, knowing no abſolute good but virtue, no real evil but remorſe. They believed that man was capable of raiſing himſelf to this elevation, if he poſſeſſed a ſtrong and conſtant deſire of doing ſo; and that then, independent of fortune, always maſter of himſelf, he was equally inacceſſable to vice and calamity.

An individual mind animates the world: it is preſent in every thing, if it be not every thing, if there exiſt any other thing than itſelf. The ſouls of human beings are emanations of it. That of the ſage, who has not defiled the purity of his origin, is re-united, at the inſtant of death, to this univerſal ſpirit. Accordingly, to the ſage, death would be a bleſſing, if, ſubmiſſive to nature, hardened againſt what vulgar men call evils, it was not more glorious in him to regard it with indifference.

By Epicurus, happineſs is placed in the enjoyment of pleaſure, and in freedom from pain. Virtue, according to him, conſiſts in following the natural inclinations of the heart, at the ſame time taking care to purify and direct them. The practice of temperance, which prevents pain, and, by preſerving our faculties in their full force, ſecures all the enjoyments that nature has provided for us; the care to guard ourſelves againſt hateful and violent paſſions that torment and rend the ſoul delivered up to their bitterneſs and fury; the farther care to cultivate, on the contrary, the mild and tender affections; to be frugal of pleaſures that flow from benevolence; to preſerve the ſoul in purity, that we may avoid the ſhame and remorſe which puniſh vice, and enjoy the delicious ſentiment that is the reward of laudable actions: ſuch is the road that conducts at once both to happineſs and virtue.

Epicurus regarded the univerſe only as a collection of atoms, the different combinations of which were ſubjected to neceſſary laws. The human ſoul was itſelf one of thoſe combinations. The atoms which compoſed it united when the body began to live, were diſperſed at the moment of death, to unite themſelves again to the common maſs, and enter into new combinations.

Unwilling too violently to ſhock popular prejudices, he admitted of Gods; but, indifferent to the actions of men, ſtrangers to the order of the univerſe, and governed, like other beings, by the general laws of its

mechaniſm, they were a ſort of excreſcence of the ſyſtem.

Men of moroſe, proud, and unjuſt characters, ſcreened themſelves under the maſk of ſtoiciſm, while voluptuous and corrupt men frequently ſtole into the gardens of Epicurus. Some calumniated the principles of the Epicureans, who were accuſed of placing the ſovereign good in the gratification of ſenſual appetites. Others turned into ridicule the pretenſions of the ſage Zeno, who, whether a ſlave at the mill, or tormented with the gout, was equally happy, free, and independent.

The philoſophy that pretended to ſoar above nature, and that which wiſhed only to obey nature; the morality which acknowledged no other good than virtue, and that which placed happineſs in the indulgence of the natural inclinations, led to the ſame practical conſequences, though departing from ſuch oppoſite principles, and holding ſo contrary a language. This reſemblance between the moral precepts of all ſyſtems of religion, and all ſects of philoſophy, would be ſufficient to prove that they have a foundation independent of the dogmas of thoſe religions, or the principles of thoſe ſects; that it is in the moral conſtitution of man we muſt ſeek the baſis of his duties, the origin of his ideas of juſtice and virtue: a truth which the ſect of Epicureans approached more nearly than any other; and no circumſtance perhaps ſo much contributed to draw upon it the enmity of all claſſes of hypocrites with whom

morality was no commercial object of which they ambitiouſly contended for the monopoly.

The fall of the Greek republics involved that of the political ſciences. After Plato, Ariſtotle, and Xenophon, they almoſt ceaſed to be included in the ſyſtem of philoſophy.

But it is time to ſpeak of an event that changed the lot of a conſiderable part of the world, and exerciſed on the progreſs of the mind an influence that has reached even to ourſelves.

If we except India and China, the city of Rome had extended its empire over every nation in which human intelligence had riſen above the weakneſs of its earlieſt infancy.

It gave laws to all the countries into which the Greeks had introduced their language, their ſciences, and their philoſophy; and theſe nations, held by a chain which victory had faſtened to the foot of the capitol, no longer exiſted but by the will of Rome, and for the paſſions of its chiefs.

A true picture of the conſtitution of this ſovereign city will not be foreign to the object of this work. We ſhall there ſee the origin of hereditary patrician rank, and the artful means that were adopted to give it greater ſtability and force, by rendering it leſs odious; we ſhall there ſee a people inured to arms, but never employing them in domeſtic diſſentions; uniting real power to legal authority, yet ſcarcely defending themſelves againſt

a haughty ſenate, that, while it rivetted the chains of ſuperſtition, dazzled them at the ſame time with the ſplendor of their victories; a great nation, the ſport in turn both of its tyrants and its defenders, and the patient dupe, for four centuries, of a mode of taking votes, abſurd but conſecrated.

We ſhall ſee this conſtitution, made for a ſingle city, change its nature without changing its form, when it was neceſſary to extend it to a great empire unable to maintain itſelf but by continual wars, and preſently deſtroyed by its own armies; and laſtly, the people, the ſovereign people, debaſed by the habit of being maintained at the expence of the public treaſury, and corrupted by the bounty of the ſenators, ſelling to an individual the imaginary remains of their uſeleſs freedom.

The ambition of the Romans led them to ſearch in Greece for maſters in the art of eloquence, which in Rome was one of the roads to fortune. That taſte for excluſive and refined enjoyments, that want of new pleaſures, which ſprings from wealth and idleneſs, made them court others arts of the Greeks, and even the converſation of their philoſophers. But the ſciences, philoſophy, and the arts connected with painting, were plants foreign to the ſoil of Rome. The avarice of the conquerors covered Italy with the maſter-pieces of Greece, taken by violence from the temples, from cities of which they conſtituted the ornament, and where they ſerved as a conſolation under ſlavery. But the produc-

tions of no Roman dared mix with them. Cicero, Lucretius and Seneca wrote eloquently in their language upon philoſophy, but it was upon Grecian philoſophy; and to reform the barbarous calendar of Numa, Cæſar was obliged to employ a mathematician from Alexandria.

Rome, long torn by the factions of ambitious generals, buſied in new conqueſts, or agitated by civil diſcords, fell at laſt from its reſtleſs liberty into a military deſpotiſm ſtill more reſtleſs. And where, among the chiefs that aſpired to tyranny, and ſoon after under the deſpots who feared truth and equally hated both talents and virtue, were the tranquil meditations of philoſophy and the ſciences to find a place? Beſides, the ſciences and philoſophy are neceſſarily neglected as barren and unprofitable in every country where ſome honourable career, leading to wealth and dignities, is open to all whom their natural inclination may diſpoſe to ſtudy: and ſuch at Rome was that of juriſprudence.

When laws, as in the eaſt, are allied to religion, the right of interpreting them becomes one of the ſtrongeſt ſupports of ſacerdotal tyranny. In Greece they had conſtituted a part of the code given to each city by its reſpective legiſlator, who had aſſimilated them to the ſpirit of the conſtitution and government which he eſtabliſhed. They experienced but few alterations. The magiſtrates frequently abuſed them, and individual inſtances of injuſtice were not leſs frequent; but the vices of the laws never extended in Greece to a regular ſyſtem

of robbery, reduced to the cold forms of calculation. In Rome, where for a long time no other authority was known but the tradition of cuſtoms, where the judges declared every year by what principles diſputes would be decided during the continuance of their magiſtracy, where the firſt written laws were a compilation from the Greek laws, drawn up by the decemvirs, more anxious to preſerve their power than to honour it by preſenting a ſound code of legiſlation: in Rome, where, after that period, laws, dictated at one time by the party of the ſenate, and at another by the party of the people, ſucceeded each other with rapidity, and were inceſſantly either deſtroyed or confirmed, meliorated or aggravated by new declarations, the multiplicity, the complication and the obſcurity of the laws, an inevitable conſequence of the fluctuation of the language, ſoon made of this ſtudy a ſcience apart. The ſenate, taking advantage of the reſpect of the people for the ancient inſtitutions, ſoon felt that the privilege of interpreting laws was nearly equivalent to that of making new ones; and accordingly this body abounded with lawyers. Their power ſurvived that of the ſenate itſelf: it increaſed under the emperors, becauſe it is neceſſarily greater as the code of legiſlation becomes more anomalous and uncertain.

Juriſprudence then is the only new ſcience for which we are indebted to the Romans. We ſhall trace its hiſtory, ſince it is connected with the progreſs which the ſcience of legiſlation has made among the moderns, and

particularly with the obſtacles which that legiſlation has had to encounter.

We ſhall ſhow, that reſpect for the poſitive law of the Romans has contributed to preſerve ſome ideas of the natural law of men, in order afterwards to prevent theſe ideas from increaſing and extending themſelves; and that while we are indebted to their code for a ſmall quantity of truths, it has furniſhed us with a far greater portion of tyrannical prejudices.

The mildneſs of the penal laws, under the republic, is worthy our notice. They in a manner rendered ſacred the blood of a Roman citizen. The penalty of death could not be inflicted, without calling forth that extraordinary power which announced public calamities and danger to the country. The whole body of the people might be claimed as judge between a ſingle individual and the republic. It was found that, with a free people, this mildneſs was the only way to prevent political diſſentions from degenerating into cruel maſſacres; the object was to correct, by the humanity of the laws, the ferocious manners of a people that, even in its ſports, ſquandered profuſely the blood of its ſlaves. Accordingly, ſtopping at the times of the Gracchi, in no country have ſtorms ſo numerous and violent been attended with ſo few crimes, or coſt ſo little blood.

No work of the Romans upon the ſubject of politics has deſcended to us. That of Cicero upon laws was probably but an embelliſhed extract from the books of

the Greeks. It was not amidſt the convulſions of expiring liberty, that moral ſcience could refine and perfect itſelf. Under the deſpotiſm of the Cæſars, ſtudy would have experienced no other conſtruction than a conſpiracy againſt their power. In ſhort, nothing more clearly proves how much the Romans were ignorant of this ſcience, than the example they furniſh us, not to be equalled in the annals of hiſtory, of an uninterrupted ſucceſſion, from Nerva to Marc Antony, of five emperors, poſſeſſing at once virtue, talents, knowledge, a love of glory, and zeal for the public welfare, without a ſingle inſtitution originating from them that has marked the deſire of fixing bounds to deſpotiſm, of preventing revolutions, and of cementing by new ties the parts of that huge maſs, of which every thing predicted the approaching diſſolution.

The union of ſo many nations under one ſovereignty, the ſpread of too languages which divided the empire, and which were alike familiar to almoſt every well-informed mind, theſe cauſes, acting in concert, muſt have contributed, no doubt, to the more equal diffuſion of knowledge over a greater ſpace. Another natural effect muſt have been to weaken by degrees the differences which ſeparated the philoſophical ſects, and to unite them into one, that ſhould contain ſuch opinions of each as were moſt conformable to reaſon, and which a ſober inveſtigation had tended to confirm. This was the point to which reaſon could not fail to bring philoſophers

when, from the effect of time on the enthuſiaſm of ſectaries, her voice alone was ſuffered to be heard. Accordingly, we find already, in Seneca, marks of this philoſophy: indeed it was never entirely diſtinct from the ſect of the academics, which at length appeared to become entirely the ſame with it; and the moſt modern of the diſciples of Plato were the founders of the ſect of electics.

Almoſt every religion of the empire had been national; but they all poſſeſſed ſtrong lines of reſemblance, and in a manner a family likeneſs. No metaphyſical doctrines; many ſtrange ceremonies, of the meaning of which the people, and frequently the prieſts, were ignorant; an abſurd mythology, in which the multitude read the marvellous hiſtory of its Gods only, but which men better enlightened ſuſpected to be an allegory of doctrines more ſublime; bloody ſacrifices; idols repreſenting Gods, and of which ſome poſſeſſed a celeſtial virtue; pontiffs devoted to the worſhip of each divinity, but without forming a political corps, and even without being united in a religious communion; oracular powers attached to certain temples, reſiding in certain ſtatues; and laſtly, myſteries, which their hierophants never revealed without impoſing an inviolable law of ſecrecy. Theſe were the features of reſemblance.

Let us add, that the prieſts, arbiters of the religious conſcience, had preſumed to aſſert no claim upon the moral conſcience; that they directed the practice

of worſhip, but not the actions of private life. They ſold oracles and auguries to political powers; they could precipitate nations into war; they could dictate to them crimes; but they exerciſed no influence either over the government or the laws.

When the different nations, ſubjects now of the ſame empire, enjoyed an habitual intercourſe, and knowledge had every where made nearly an equal progreſs, it was ſoon diſcovered, by well-informed minds, that all this multifarious worſhip was that of one only God, of whom the numerous divinities, the immediate objects of popular adoration, were but the modifications or the miniſters.

Meanwhile, among the Gauls, and in ſome cantons of the eaſt, the Romans had found religions of another kind. There the prieſts were the arbiters of morality; and virtue conſiſted in obedience to a God, of whom they called themſelves the ſole interpreters. Their power extended over the whole man; the temple and the country were confounded: without being previouſly an adorer of Jehova, or Œſus, it was impoſſible to be a citizen or ſubject of the empire; and the prieſts determined to what human laws their God exacted obedience.

Theſe religions were calculated to wound the pride of the maſters of the world. That of the Gauls was too powerful for them not to ſeek immediately its deſtruction. The Jewiſh nation was even diſperſed. But

the vigilance of government either diſdained, or elſe was unable to reach, the obſcure ſects that ſecretly formed themſelves out of the wreck of the old ſyſtems of worſhip.

One of the benefits reſulting from the propagation of the Greek philoſophy, had been to put an end to a belief in the popular divinities in all claſſes of men who had received any tolerable education. A vague kind of deiſm, or the pure mechaniſm of Epicurus, was, even at the time of Cicero, the common doctrine of every enlightened mind, and of all thoſe who had the direction of public affairs. This claſs of men was neceſſarily attached to the old religion, which however it ſought to purify from its droſs; for the multiplicity of Gods of every country had tired out even the credulity of the people. Then were ſeen philoſophers forming ſyſtems upon the idea of interpoſing genii, and ſubmitting to preparatory obſervances, rites, and a religious diſcipline, to render themſelves more worthy of approaching theſe ſuperior eſſences; and it was in the dialogues of Plato they ſought the principles of this doctrine.

The inhabitants of conquered nations, the children of misfortune, men of a weak but ſanguine imagination, would from preference attach themſelves to the ſacerdotal religions; becauſe the intereſt of the ruling prieſts dictated to them that very doctrine of equality in ſlavery, of the renunciation of temporal enjoyments, of rewards

in heaven reſerved for blind ſubmiſſion, for ſufferings, for mortifications inflicted voluntarily, or endured without repining; that doctrine ſo attractive, ſo conſolatory to oppreſſed humanity! But they felt the neceſſity of relieving, by metaphyſical ſubtleties, their groſs mythology: and here again they had recourſe to Plato. His dialogues were the arſenal to which two oppoſite parties reſorted to forge their theological arms. In the ſequel we ſhall ſee Ariſtotle obtaining a ſimilar honour, and becoming at once the maſter of the theologians, and chief of the athieſts.

Twenty Egyptian and Jewiſh ſects, united their forces againſt the religion of the empire, but contending againſt each other with equal fury, were loſt at length in the religion of Jeſus. From their wreck were compoſed a hiſtory, a creed, a ritual, and a ſyſtem of morality, to which by degrees the maſs of theſe fanatics attached themſelves.

They all believed in a Chriſt, a Meſſiah ſent from God to reſtore the human race. This was the fundamental doctrine of every ſect that attempted to raiſe itſelf upon the ruins of the ancient ſects. They diſputed reſpecting the time and place of his appearance, and his mortal name: but a prophet, ſaid to have ſtarted up in Paleſtine, in the reign of Tiberius, eclipſed all the other expected prophets, and the new fanatics rallied under the ſtandard of the ſon of Mary.

In proportion as the empire weakened, the progreſs of this religion of Chriſt became more rapid. The degraded ſtate of the ancient conquerors of the world extended to their Gods, who, after preſiding in their victories, were no longer regarded than as the impotent witneſſes of their defeat. The ſpirit of the new ſect was better ſuited to periods of decline and misfortune. Its chiefs, in ſpite of their impoſtures and their vices, were enthuſiaſts ready to ſuffer death for their doctrine. The religious zeal of the philoſophers and of the great, was only a political devotion: and every religion which men permit themſelves to defend as a creed uſeful to be left to the people, can expect no other fate than a diſſolution more or leſs diſtant. Chriſtianity ſoon became a powerful party; it mixed in the quarrels of the Cæſars: it placed Conſtantine on the thorne; where it afterwards ſeated itſelf, by the ſide of his weak ſucceſſors.

In vain did one of thoſe extraordinary men whom chance ſometimes exalts to ſovereign power, Julian, wiſh to free the empire from this plague which was calculated to haſten its fall. His virtues, his indulgent humanity, the ſimplicity of his manners, the dignity of his ſoul and his character, his talents, his courage, his military genius, the ſplendor of his victories, every thing ſeemed to promiſe him ſucceſs. No other reproach could be caſt upon him than that of ſhowing for a religion, become ridiculous, an attachment unworthy of him if ſincere, indiſcreet from its extravagance if political;

but he died in the midſt of his glory, after a reign of two years. The Coloſſus of the Roman Empire found its arms no longer ſufficiently ſtrong to ſupport the weight of it; and the death of Julian broke down the only mound that might yet have oppoſed itſelf againſt the torrent of new ſuperſtitions, and the inundations of barbarians.

Contempt for human ſciences was one of the firſt features of Chriſtianity. It had to avenge itſelf of the outrages of philoſophy; it feared that ſpirit of inveſtigation and doubt, that confidence of man in his own reaſon, the peſt alike of all religious creeds. The light of the natural ſciences was even odious to it, and was regarded with a ſuſpicious eye, as being a dangerous enemy to the ſucceſs of miracles: and there is no religion that does not oblige its ſectaries to ſwallow ſome phyſical abſurdities. The triumph of Chriſtianity was thus the ſignal of the entire decline both of the ſciences and of philoſophy.

Had the art of printing been known, the ſciences would have been able to preſerve their ground; but the exiſting manuſcripts of any particular book were few in number; and to procure works that might form the entire body of a ſcience, required cares, and often journies and an expence to which the rich only were competent. It was eaſy for the ruling party to ſuppreſs the appearance of books which ſhocked its prejudices, or unmaſked its impoſtures. An incurſion of barbarians might, in one

day, deprive forever a whole country of the means of knowledge. The deſtruction of a ſingle manuſcript was often an irreparable and univerſal loſs. Beſides, no works were copied but ſuch as were recommended by the names of the authors. All thoſe inveſtigations which can acquire importance only from their aſſemblage, thoſe detached obſervations, thoſe improvements of detail, that ſerve to keep the ſciences flowing in a level channel, and that prepare their future progreſs; all thoſe materials which time amaſſes, and which await the birth of genius, were condemned to an eternal obſcurity. That concert of learned men, that combination of all their forces, ſo advantageous, ſo indiſpenſible at certain periods, had no exiſtence. It was neceſſary for the ſame individual to begin and complete a diſcovery; and he was obliged to combat with his ſingle ſtrength all the obſtacles which nature oppoſes to our efforts. The works which facilitate the ſtudy of the ſciences, which throw light upon difficulties, which exhibit truths under more commodious and more ſimple forms, thoſe details of obſervation, thoſe developements which ſerve to detect erroneous inferences, and in which the reader frequently catches what the author himſelf has not perceived; ſuch works would find neither copyiſts nor readers.

It was then impoſſible that the ſciences, arrived at a point in which the progreſs, and even the ſtudy of them were ſtill difficult, ſhould be able to ſupport themſelves, and reſiſt the current that bore them rapidly

towards their decline. Accordingly it ought not to aſtoniſh us that Chriſtianity, though unable in the ſequel to prevent their re-appearance in ſplendor, after the invention of printing, was at this period ſufficiently powerful to accompliſh their ruin.

If we except the dramatic art, which flouriſhed only in Athens, and muſt have been involved in her fall, and eloquence, which cannot breathe but in a free air, the language and literature of the Greeks preſerved for a long time their luſtre. Lucian and Plutarch would not diſparage the age of Alexander. Rome, it is true, roſe to a level with Greece in poetry, eloquence, hiſtory, and the art of treating with dignity, elegance and faſcination, the dry ſubjects of philoſophy and the ſciences. Greece indeed had no poet, that evinced ſo fully as Virgil, the idea of perfection, and no hiſtorian to be compared with Tacitus. But this inſtant of ſplendor was followed by a ſpeedy decline. From the time of Lucian, Rome had ſcarcely any writers above barbariſm. Chryſoſtom ſtill ſpeaks the language of Demoſthenes. We recogniſe no longer that of Cicero or of Livy, either in Auſtin, or even in Jerome, who has to plead in his excuſe the influence of African barbarity.

The cauſe is, that at Rome the ſtudy of letters and love of the arts were never the real taſte of the people; that the tranſient perfection of its language was the work not of the national genius, but of a few individuals whom Greece had been the inſtrument of forming. The cauſe

is, that the Roman territory was always, as to letters, a foreign ſoil, to which an aſſiduous culture had been able to naturaliſe them, but where they muſt neceſſarily degenerate the moment they were abandoned to themſelves.

The importance ſo long affixed, in Greece and in Rome, to the tribune and the bar, increaſed in thoſe countries the claſs of rhetoricians. Their labours have contributed to the progreſs of the art, of which they have developed the principles and ſubtleties. But they taught another art too much neglected by the moderns, and which at preſent it has been thought proper to tranſfer from ſpeeches for the tribune, to compoſitions for the preſs: I mean that of preparing with facility, and in a ſhort ſpace of time, diſcourſes, which, from the arrangement of their parts, from the method conſpicuous in them, from the graces with which they may be embelliſhed, ſhall at leaſt become ſupportable: I mean the art of being able to ſpeak almoſt inſtantaneouſly, without fatiguing the auditors with a medley of ideas, or a diffuſe ſtyle; without diſguſting them with idle declamation, quaint conceits, nonſenſe and fopperies. How uſeful would be this art in every country where the functions of office, public duty, or private intereſt may oblige men to ſpeak and write, without having time to ſtudy their ſpeeches or their compoſitions? its hiſtory is the more deſerving our attention, as the moderns, to whom in the

mean time it muſt often be neceſſary, appear only to have known it on the ſide of abſurdity.

From the commencement of the epoch of which I ſhall here terminate the delineation, manuſcripts were tolerably numerous; but time had ſpread over the performances of the firſt Greek writers a ſufficient number of obſcurities, for the ſtudy of books and opinions, known by the name of erudition, to form an important portion of the occupations of the mind; and the Alexandrian library was crowded with grammarians and critics.

In what has been tranſmitted to us of their productions, we perceive a propenſity in theſe critics to proportion their degree of confidence and admiration of any book to its antiquity, and the difficulty of underſtanding and procuring it; a diſpoſition to judge opinions not by themſelves, not according to their merits, but from the names of their authors; to found their belief upon authority, rather than upon reaſon; in ſhort, that falſe and deſtructive idea of the deterioration of the human race, and ſuperiority of ancient periods. The ſolution and excuſe of this error, an error in which the antiquarians of every country have had a greater or leſs ſhare, are to be found in the importance which men affix to what has been the object of their attention, and called forth the energies of their mind.

The Greek and Roman antiquarians, and even their literati and philoſophers, are chargeable with a total

neglect of that ſpirit of doubt which ſubjects to a rigorous inveſtigation both facts, and the proofs that eſtabliſh them. In reading their accounts of the hiſtory of events or of manners, of the productions and phenomena of nature, or of the works and proceſſes of the arts, we are aſtoniſhed at the compoſure with which they relate the moſt palpable abſurdities, and the moſt fulſome and diſguſting prodigies. A hearſay or rumour which they found tacked to any event, was ſufficient, they conceived, to ſcreen them from the cenſure of childiſh credulity. This indifference, which ſpoiled their ſtudy of hiſtory, and was an obſtruction to their advancement in the knowledge of nature, is to be aſcribed to the misfortune of the art of printing not being known. The certainty of our having collected, reſpecting any fact, all the authorities for and againſt it, a facility in comparing the different teſtimonies, the opportunity of throwing light upon the ſubject by the diſcuſſions to which that difference may give riſe, are means of aſcertaining truth which can only exiſt when it is poſſible to procure a great number of books, when copies of them may be indefinitely multiplied, and when no fear is entertained of giving them too extenſive a circulation.

How were the relations and deſcriptions of travellers, of which there frequently exiſted but a ſingle copy, deſcriptions that were not ſubjected to public judgment, to acquire that ſtamp of authority, founded upon the circumſtance of ſuch judgment not having, and not

being able, to contradict them? Accordingly, every thing was recorded alike, because it was impossible to ascertain with any certainty what was deserving of record. But we can have no right to astonishment at this practice of representing with equal confidence, and as founded upon equal authorities, facts the most natural, and miracles the most stupendous: the same error is still inculcated in our schools as a principle of philosophy, while, in another sense, an over-weening incredulity leads us to reject without examination whatever appears to us to be out of nature; nor has the science in our days begun to exist, that can alone teach us to find, between these two extremes, the point at which reason directs us to stop.

# SIXTH EPOCH.

## *Decline of Learning, to its Reſtoration about the Period of the Cruſades.*

IN the diſaſtrous epoch at which we are now arrived, we ſhall ſee the human mind rapidly deſcending from the height to which it had raiſed itſelf, while Ignorance marches in triumph, carrying with her, in one place, barbarian ferocity; in another, a more refined and accompliſhed cruelty; every where, corruption and perfidy. A glimmering of talents, ſome faint ſparks of greatneſs or benevolence of ſoul, will, with difficulty, be diſcerned amidſt the univerſal darkneſs. Theological reveries, ſuperſtitious deluſions, are become the ſole genius of man, religious intolerance his only morality; and Europe, cruſhed between ſacerdotal tyranny and military deſpotiſm, awaits, in blood and in tears, the moment when the revival of light ſhall reſtore it to liberty, to humanity, and to virtue.

We ſhall divide the picture into two diſtinct parts. The firſt will embrace the Weſt, where the decline was more rapid and more abſolute, but where the light of reaſon is again to make its appearance, never more to be extinguiſhed. The ſecond will be confined to the

East, where the decline was more ſlow, and, for a long time, leſs univerſal, but where the day of reaſon has not yet dawned, that ſhall enlighten it, and enable it to break in pieces its chains.

Chriſtian piety had ſcarcely overthrown the altars of victory, when the Weſt became the prey of barbarians. They embraced the new religion, without adopting the language of the vanquiſhed. This the prieſts alone preſerved; but, from their ignorance and contempt for human learning, they exhibited none of thoſe appearances which might have been expected from a peruſal of the Latin books, particularly when they only were capable of reading them.

The illiterate character, and rude manners of the conquerors, are ſufficiently known: meanwhile, it was in the midſt of this ferocious ſtupidity that the deſtruction of domeſtic ſlavery took place; a ſlavery that had diſgraced the beſt days of Greece, when a country diſtinguiſhed for learning and liberty.

The rural ſlaves, ſerfs of the glebe, cultivated the lands of the conquerors. By this oppreſſed claſs of men their houſes were ſupplied with domeſtics, whoſe dependent ſituation anſwered all the purpoſes of their pride or their caprice. Accordingly, the object of their wars was not ſlaves, but lands and colonies.

Beſide, the domeſtic ſlaves which they found in the countries they invaded, were in a great meaſure either priſoners taken from ſome tribe of the victorious nation,

or the children of thoſe priſoners. Many, at the moment of conqueſt, had fled, or elſe joined themſelves to the army of the conquerors.

The principles of general fraternity, which conſtituted a part of the Chriſtian morals, alſo condemned ſlavery; and, as the prieſts ſaw no political reaſon for contradicting, in this particular, maxims that did honour to their cauſe, they contributed, by their diſcourſes, to a downfall which otherwiſe events and manners would neceſſarily have accompliſhed.

This change has proved the generative principle of a revolution in the deſtinies of mankind. To this men are indebted for the knowledge of true liberty. But its influence on the lot of individuals was at firſt almoſt inſenſible. We ſhould form a very falſe idea of domeſtic ſlavery as it exiſted at this period and among the ancients, if we compared it to that of our negroes. The Spartans, the grandees of Rome, and the ſatraps of the Eaſt, were, no doubt, barbarous maſters. Avarice diſplayed all its brutality in the labours of the mines: but, on the other hand, intereſt had almoſt every where ſoftened the ſtate of ſlavery in private families. The impunity granted for violences committed againſt the rural ſlave, was carried to a high pitch, ſince the law had exactly fixed its price. His dependence was as great as that of the domeſtic, without being compenſated by the ſame attentions. He was leſs perpetually under the eye of his maſter; but he was treated with a more lordly arrogance. The domeſtic

was a ſlave whom fortune had reduced to a condition, to which a ſimilar fortune might one day reduce his maſter. The rural ſlave, on the contrary, was conſidered as of a lower claſs, and in a ſtate of degradation.

It is principally, then, in its remote conſequences that we muſt conſider this anninilation of domeſtic ſlavery.

Theſe barbarian nations had all nearly the ſame form of government, conſiſting of a common chief, called *king*, who, with a council, pronounced judgments, and gave deciſions, that it would have been dangerous to delay; of an aſſembly of private chiefs, conſulted upon all reſolutions of a certain importance; and, laſtly, of an aſſembly of the people, in which meaſures intereſting to the general community were deliberated. The principal difference was the greater or leſs degree of authority affixed to theſe three powers, which were not diſtinguiſhed by the nature of their functions, but by the rank of affairs conſided to them; and, above all, by the value of that rank in the minds of the majority of the citizens.

Among the agricultural tribes of theſe barbarians, and particularly thoſe who had already formed an eſtabliſhment on a foreign territory, theſe conſtitutions had aſſumed a more regular and more ſolid form, than among paſtoral tribes. The individuals of ſuch tribes alſo were diſperſed over the ſoil, and did not live, like the others, in encampments more or leſs numerous. The king therefore had not always an army aſſembled about his

perſon; and deſpotiſm could not ſo immediately follow upon conqueſt, as in the revolutions of Aſia.

The *victorious* nation was thus not enſlaved. At the ſame time, theſe conquerors kept the towns, but without inhabiting them. As they were not held in awe by an armed force, no permanent force of that kind exiſting, they acquired a ſort of power; and this power was a point of ſupport for the liberty of the *conquered* nation.

Italy was often invaded by the barbarians; but they were able to form there no durable eſtabliſhment, from its wealth continually exciting the avarice of new conquerors, and becauſe the Greeks entertained the hope, for a conſiderable period, of uniting it to the empire. It was never, by any people, entirely or permanently ſubdued. The Latin language, which was there the only language of the people, degenerated more ſlowly; and ignorance alſo was leſs complete, ſuperſtition leſs ſenſeleſs, than in the other parts of the Weſt.

Rome, which acknowledged maſters only to change them, maintained a ſort of independence. This city was the reſidence of the chief of the religion. Accordingly, while in the Eaſt, ſubjected to a ſingle prince, the clergy, ſometimes governing, and ſometimes conſpiring againſt the emperors, ſupported deſpotiſm, though reſiſting the deſpot, and preferred availing themſelves of the whole power of an abſolute maſter, to diſputing a part of it; we ſee them, on the contrary, in the Weſt, united under a common head, erecting a power, the rival of that of

kings, and forming in these divided states a sort of distinct and independent monarchy.

We shall exhibit this ruling city trying the experiment upon the universe of a new species of chains; its pontiffs subjugating ignorant credulity by acts grosly forged; mixing religion with all the transactions of civil life, to render them more subservient to their avarice or their pride; punishing by anathemas, from which the people shrunk with horror, the least opposition to their laws, the smallest resistance of their absurd pretensions; having an army of monks in every state, ready, by their impostures, to enhance the terrors of superstition, thereby to feed the flame of fanaticism; depriving nations of their worship and ceremonies upon which depended their religious hopes, to kindle civil war; disturbing all, to govern all; commanding in the name of God, treason and perfidy, assassination and parricide; making kings and warriors now the instruments, and now the victims, of their revenge; disposing of force, but never possessing it; terrible to their enemies, but trembling before their own defenders; omnipotent to the very extremities of Europe, yet insulted with impunity at the foot even of their altars; finding in heaven the point upon which to fix the lever for moving the world, but without discovering on earth the regulator that is to direct and continue its motion at their will; in short, erecting a Colossus, but with legs of clay, that, after first oppressing Europe,

is afterwards to weary it, for a long period, with the weight of its ruins and ſcattered fragments.

Conqueſt had introduced into the Weſt a tumultuous anarchy, in which the people groaned under the triple tyranny of kings, leaders of armies, and prieſts; but this anarchy carried in its womb the ſeed of liberty. In this portion of Europe muſt be comprehended the countries into which the Romans had not penetrated. Partaking of the general commotion, conquering and conquered in turn, having the ſame origin, the ſame manners as the conquerors of the empire, theſe people were confounded with them in the common maſs. Their political ſtate muſt have experienced the ſame alterations, and followed a ſimilar route.

We ſhall give a ſketch of the revolutions of this feodal anarchy: a name that may furniſh an idea of its character.

Their legiſlation was incoherent and barbarous. If we find in its records many laws apparently mild, this mildneſs was nothing elſe than an unjuſt and privileged impunity. Meanwhile we trace among them ſome inſtitutions of a true temper, which, though as being intended to conſecrate the rights of the oppreſſor, were an additional outrage to the rights of men, yet tended to preſerve ſome feeble idea of theſe laſt, and were deſtined one day to ſerve as an index to their recognition and reſtoration.

In this legiſlation two ſingular cuſtoms are obſervable, characteriſtic at once both of the infancy of nations, and the ignorance of the rude ages. A criminal might purchaſe exemption from puniſhment by means of a ſum of money fixed by law, which eſtimated the lives of men according to their dignity or their birth. Crimes were not conſidered as a violation of the ſecurity and rights of citizens, which the dread of puniſhment was to prevent, but as an outrage committed on an individual, which himſelf or his family might avenge, if they pleaſed, but of which the law offered a more advantageous reparation. Men had ſo little notion of aſcertaining the proofs by which a fact might be ſubſtantiated, that it was thought a more ſimple mode of proceeding to requeſt of Heaven a miracle, whenever the queſtion was to diſcriminate between guilt and innocence; and the ſucceſs of a ſuperſtitious experiment, or the chance event of a combat, were regarded as the ſureſt means of detecting falſhood and arriving at the truth.

With men who made no diſtinction between independence and liberty, the quarrels ariſing among thoſe who ruled over a portion, however ſmall, of the territory, muſt degenerate into private wars; and theſe wars extending from canton to canton, from village to village, habitually delivered up the whole ſurface of each country to all thoſe horrors which, even in great invaſions, are but tranſient, and in general wars deſolate only the frontiers.

Whenever tyranny aims at reducing the maſs of a people to the will of one of its portions, the prejudices and ignorance of the victims are counted among the means of effecting it; it endeavours to compenſate, by the compreſſion and activity of a ſmaller force for the ſuperiority of real force, which, one might ſuppoſe, cannot fail to belong, at all times, to the majority of numbers. But the principal foundation of its hope, which however it can ſeldom attain, is that of eſtabliſhing between the maſters and ſlaves a real difference, which ſhall in a manner render nature herſelf an accomplice in the guilt of political inequality.

Such was, in remote periods, the art of the Eaſtern prieſts, who were at once kings, pontiffs, judges, aſtronomers, ſurveyors, artiſts and phyſicians. But what they owed to the excluſive poſſeſſion of intellectual powers, the groſſer tyrants of our weak progenitors obtained by their inſtitutions and their warlike habits. Clothd with an impenetrable armour, fighting only upon horſes as invulnerable as themſelves, acquiring, by dint of a long and painful diſcipline, the neceſſary ſtrength and addreſs for guiding and governing them, they might oppreſs with this impunity and murder without riſk, an individual of the commonalty, too poor to purchaſe theſe expenſive accoutrements, and whoſe youth, neceſſarily occupied by uſeful labours, could not have been devoted to military exerciſes.

Thus the tyranny of the few acquired, by the practice of this mode of fighting, a real ſuperiority of force, which muſt have excluded all idea of reſiſtance, and which rendered for a long time fruitleſs even the efforts of deſpair. Thus the equality of nature diſappeared before this factitious inequality of ſtrength.

The morality of this period, which it was the province of the prieſts alone to inculcate, comprehended thoſe univerſal principles which no ſect has overlooked: but it gave birth to a multitude of duties purely religious, and of imaginary ſins. Theſe duties were more ſtrongly enforced than thoſe of nature; and actions indifferent, lawful, and even virtuous, were cenſured and puniſhed with greater ſeverity than actual crimes. Meanwhile a momentary repentance, conſecrated by the abſolution of a prieſt, opened the gates of heaven to the wicked; and donations to the church, with the obſervance of certain practices flattering to its pride, ſufficed to atone for a life crowded with iniquity. Nor was this all: abſolutions were formed into a regular tariff. Care was taken to include in the catalogue of ſins, all the degrees of human infirmity, from ſimple deſires, from the moſt innocent indulgences of love, to the refinements and exceſſes of the moſt intemperate debauchery. This was a frailty from which, it was well known, few were able to eſcape; and was accordingly one of the moſt productive branches of the ſacerdotal commerce. There was even a hell of a limited duration invented, which prieſts had

the power of abridging, and from which they could grant diſpenſations; a favour which they firſt obliged the living to purchaſe, and afterwards the relations or friends of the deceaſed. They ſold ſo much land in heaven for an equal quantity of land upon earth; and they had the extreme modeſty not to aſk any thing to boot.

The manners of this epoch were unfortunately worthy of a ſyſtem ſo pregnant with corruption, ſo rootedly depraved. Their nature may be learned from the progreſs of this very ſyſtem itſelf; from the monks, ſometimes inventing old miracles, ſometimes fabricating new ones, and nouriſhing with prodigies and fables the ſtupid ignorance of the people, whom they deceived in order to rob them; from the doctors of the church, employing the little imagination they poſſeſſed in enriching their creed with farther abſurdities, and exceeding, if poſſible, thoſe which had been tranſmitted to them; from the prieſts, obliging princes to conſign to the flames, not only the men who preſumed either to doubt any of their dogmas, or inveſtigate their impoſtures, or bluſh for their crimes, but thoſe who ſhould depart for an inſtant from their blind obedience; and even theologiſts themſelves, when they indulged in dreams different from thoſe of the umpires of the church, enjoying moſt influence and controul. Such, at this period, are the only traits which the manners of the Weſt of Europe can furniſh to the picture of the human ſpecies.

In the Eaſt, united under a ſingle deſpot, we ſhall obſerve a ſlower decline accompanying the gradual debility of the empire; the ignorance and depravity of every age advancing a few degrees above the ignorance and depravity of the preceding one; while riches diminiſh, the frontiers ally themſelves more cloſely to the capital, revolutions become more frequent, and tyranny grows more daſtardly and more cruel.

In following the hiſtory of this empire, in reading the books that each age has produced, the moſt ſuperficial and leaſt attentive obſerver cannot avoid being ſtruck with the reſemblance we have mentioned.

The people there indulged themſelves more frequently in theological diſputes. Theſe accordingly occupy a more conſiderable portion of its hiſtory, have a greater influence upon political events, and the dreams of prieſts acquire a ſubtlety which the jealouſy of the Weſt could as yet not attain. Religious intolerance was equally oppreſſive in both quarters of Europe; but, in the country we are conſidering, its aſpect was leſs ferocious.

Meanwhile the works of Photius evince that a taſte for rational ſtudy was not extinct. A few emperors, princes, and even ſome female ſovereigns, are found ſeeking laurels out of the boundaries of theological controverſy, and deigning to cultivate human learning.

The Roman legiſlation was but ſlowly corrupted by that mixture of bad laws which avarice and tyranny dic-

tated to the emperors, or which ſuperſtition extorted from their weakneſs. TheGreek language loſt its purity and character; but it preſerved its richneſs, its forms and its grammar; and the inhabitants of Conſtantinople could ſtill read Homer and Sophocles, Thucydides and Plato. Anthemius explained the conſtruction of the burning glaſſes of Archimedes, which Proclus employed with ſucceſs in the defence of the capital. Upon the fall of the empire, this city contained ſome literary characters, who took refuge in Italy, and whoſe learning was uſeful to the progreſs of knowledge. Thus, even at this period, the Eaſt had not arrived at the laſt ſtage of ignorance; but at the ſame time it furniſhed no hope of a revival of letters. It became the prey of barbarians; the feeble remains of intellectual cultivation diſappeared; and the genius of Greece ſtill waits the hand of a deliverer.

At the extremities of Aſia, and upon the confines of Africa, there exiſted a people, who, from its local ſituation and its courage, eſcaped the conqueſts of the Perſians, of Alexander, and of the Romans. Of its numerous tribes, ſome derived their ſubſiſtence from agriculture, while others obſerved a paſtoral life; all purſued commerce, and ſome addicted themſelves to robbery. Having a ſimilarity of origin, of language and of religious habits, they formed a great nation, the different parts of which, however, were held together by no political tie. Suddenly there ſtarted up among

them a man of an ardent enthuſiaſm and moſt profound policy, born with the talents of a poet, as well as thoſe of a warrior. This man conceived the bold project of uniting the Arabian tribes into one body, and he had the courage to execute it. To ſucceed in impoſing a chief upon a nation hitherto invincible, he began with erecting upon the ruins of the ancient worſhip a religion more refined. At once legiſlator, prophet, prieſt, judge, and general of the army, he was in poſſeſſion of all the means of ſubjugating the mind; and he knew how to employ them with addreſs, but at the ſame time with comprehenſion and dignity.

He promulgated a maſs of fables, which he pretended to have received from heaven; but he alſo gained battles. Devotion and the pleaſures of love divided his leiſure. After enjoying for twenty years a power without bounds, and of which there exiſts no other example, he announced publicly, that, if he had committed any act of injuſtice, he was ready to make reparation. All were ſilent: one woman only had the boldneſs to claim a ſmall ſum of money. He died; and the enthuſiaſm which he communicated to his people will be ſeen to change the face of three quarters of the globe.

The manners of the Arabians were mild and dignified; they admired and cultivated poetry: and when they reigned over the fineſt countries of Aſia, and time had cooled the fever of fanaticiſm, a taſte for literature

and the ſciences mixed with their zeal for the propagation of religion, and abated their ardour for conqueſts.

They ſtudied Ariſtotle, whoſe works they tranſlated. They cultivated aſtronomy, optics, all the branches of medicine, and enriched the ſciences with ſome new truths. To them we owe the general application of algebra, which was confined among the Greeks to a ſingle claſs of queſtions. If the chimerical purſuit of a ſecret for the tranſmutation of metals, and a draught for the perpetuating of life degraded their chymical reſearches, they were the reſtorers, or more properly ſpeaking the inventors, of this ſcience, which had hitherto been confounded with medicine and the ſtudy of the proceſſes of the arts. Among them it appeared for the firſt time in its ſimple form, a ſtrict analyſis of bodies for the purpoſe of aſcertaining their elements, a theory of the combinations of matter and the laws to which thoſe combinations are ſubjected.

The ſciences were free, and to that freedom they owed their being able to revive ſome ſparks of the Grecian genius; but the people were ſubjected to the unmitigated deſpotiſm of religion. Accordingly this light ſhone for a few moments only to give place to a thicker darkneſs; and theſe labours of the Arabs would have been loſt to the human race, if they had not ſerved to prepare that more durable reſtoration, of which the Weſt will preſently exhibit to us the picture.

We thus ſee, for the ſecond time, genius abondoning nations whom it had enlightened ; but it was in this, as in the preceding inſtance, from before tyranny and ſuperſtition that it was obliged to diſappear. Born in Greece, by the ſide of liberty, it was neither able to arreſt the fall of that country, nor defend reaſon againſt the prejudices of the people already degraded by ſlavery. Born among the Arabs, in the midſt of deſpotiſm, and, as it were, in the cradle of a fanatical religion, it has only, like the generous and brilliant character of that people, furniſhed a tranſient exception to the general laws of nature, that condemn to brutality and ignorance enſlaved and ſuperſtitious nations.

But this ſecond example ought not to terrify us reſpecting the future; it ſhould operate only as a warning upon our contemporaries not to neglect any means of preſerving and augmenting knowledge, if they wiſh either to become or to remain free; and to maintain their freedom, if they would not loſe the advantages which knowledge has procured them.

To the account of the labours of the Arabs, I ſhall ſuggeſt the outlines of the ſudden riſe and precipitate fall of that nation, which, after reigning from the borders of the Atlantic ocean to the banks of the Indus, driven by the barbarians from the greater part of its conqueſts, retaining the reſt only to exhibit therein the ſhocking ſpectacle of a people degenerated to the loweſt ſtate of ſervitude, corruption and wretchedneſs, ſtill

occupies its ancient country, where it has preſerved its manners, its ſpirit and its character, and learned to regain and defend its former independence.

I ſhall add that the religion of Mahomet, the moſt ſimple in its dogmas, the leaſt abſurd in its practices, above all others tolerant in its principles, ſeems to have condemned to an eternal ſlavery, to an incurable ſtupidity, all that vaſt portion of the earth in which it has extended its empire; while we are about to ſee the genius of ſcience and liberty blaze forth anew under ſuperſtitions more abſurd, and in the midſt of the moſt barbarous intolerance. China exhibits a ſimilar phenomenon, though the effects of this ſtupefying poiſon have there been leſs fatal.

## SEVENTH EPOCH.

*From the firſt Progreſs of the Sciences about the Period of their Revival in the Weſt, to the Invention of the Art of Printing.*

A Variety of circumſtances have concurred to reſtore by degrees that energy to the human mind, which from chains ſo degrading and ſo heavy, one might have ſuppoſed was cruſhed forever.

The intolerance of prieſts, their eagerneſs to graſp at political power, their abominable avarice, their diſſolute manners, rendered more diſguſting by their hypocriſy, excited againſt them every honeſt heart, every unbiaſſed underſtanding, and every courageous character. It was impoſſible not to be ſtruck with the contradictions between their dogmas, maxims and conduct, and thoſe of the evangeliſts, from which their faith and ſyſtem of morals had originated, and which they had been unable totally to conceal from the knowledge of the people.

Accordingly, powerful outcries were raiſed againſt them. In the centre of France whole provinces united for the adoption of a more ſimple doctrine, a purer ſyſtem of Chriſtianity, in which, ſubjected only to the worſhip of a ſingle Divinity, man was permitted to judge

from his own reaſon, of what that Divinity had condeſcended to reveal in the books ſaid to have emanated from him.

Fanatic armies, conducted by ambitious chiefs, laid waſte the provinces. Executioners, under the guidance of legates and prieſts, put to death thoſe whom the ſoldiers had ſpared. A tribunal of monks was eſtabliſhed, with powers of condemning to the ſtake whoever ſhould be ſuſpected of making uſe of his reaſon.

Meanwhile they could not prevent a ſpirit of freedom and enquiry from making a ſilent and furtive progreſs. Cruſhed in one country, in which it had the temerity to ſhew itſelf, in which, more than once, intolerant hypocriſy kindled the moſt ſanguinary wars, it ſtarted up, or ſpread ſecretly in another. It is ſeen at every interval, till the period, when, aided by the invention of the preſs, it gained ſufficient power to reſcue a portion of Europe from the yoke of the court of Rome.

Even already there exiſted a claſs of men, who, freed from the inglorious bondage of ſuperſtition, contented themſelves with ſecretly indulging their contempt, or who at moſt went no farther than to caſt upon it, fortuitouſly as it were, ſome traits of a ridicule, which was by ſo much the more ſtriking on account of the uniform reſpect with which they took care to clothe it. The pleaſantry of the writer obtained favour for the boldneſſes of his pen. They were ſcattered with moderation through works deſtined for the amuſement of men of rank or of letters, and which never reached the maſs

of the people; for which reaſon they did not excite the reſentment of the bigot.

Frederic the ſecond was ſuſpected of being what our prieſts of the eighteenth century have ſince denominated a *philoſopher*. He was accuſed by the Pope, before all the nations of Europe, of having treated the religions of Moſes, Jeſus, and Mahomet, as political fables. To his chancellor, Pierre des Vignes, was attributed the imaginary book of the Three Impoſtors, which never had any exiſtence but in the calumnies of ſome, or the ingenious ſportiveneſs of others, but of which the very title announced the exiſtence of an opinion, the natural reſult of an examination of theſe three creeds, which, derived from the ſame ſource, were only a corruption of a leſs impure worſhip rendered by the moſt remote nations of antiquity to the univerſal ſoul of the world.

Our collections of traditional tales, and the Decameron of Bocace, are full of traits characteriſtic of this freedom of thought, this contempt of prejudices, this inclination to make them the ſubject of ſecret and acrimonious deriſion.

Thus we are furniſhed in this epoch, at one and the ſame period, with tranquil ſatiriſts of all degrees of ſuperſtition, and enthuſiaſtical reformers of its groſſeſt abuſes; and the hiſtory of theſe obſcure invectives, theſe proteſts in favour of the rights of reaſon, may be almoſt connected with that of the moſt modern diſciples of the ſchool of Alexandria.

We ſhall enquire if, when philoſophical proſelytiſm was attended with ſuch peril, ſecret ſocieties were not formed, whoſe object was to perpetuate, to ſpread ſilently and without riſk, among ſome diſciples and adepts, a few ſimple truths which might operate as a preſervative againſt prevailing prejudices.

We ſhall examine whether we ought not to rank in the number of ſuch ſocieties that celebrated order, which popes and kings conſpired againſt with ſuch meanneſs, and deſtroyed with ſo much barbarity.

Prieſts, either for ſelf-defence, or to invent pretexts by which to cover their uſurpations over the ſecular power, and to improve themſelves in the art of forging paſſages of ſcripture, were under the neceſſity of applying themſelves to ſtudy. Kings, on the other hand, to conduct with leſs diſadvantage this war, in which the claims were made to reſt upon authority and precedent, patroniſed ſchools, that might furniſh civilians, of whom they ſtood in need to be on an equality with the enemy.

In theſe diſputes between the clergy and the governments, between the clergy of each country and the ſupreme head of the church, thoſe of more honeſt minds, and of a more frank and liberal character, vindicated the cauſe of men againſt that of prieſts, the cauſe of the national clergy againſt the deſpotiſm of the foreign chief. They attacked abuſes and uſurpations, of which they attempted to unveil the origin. To us this boldneſs ſcarcely appears at preſent ſuperior to ſervile timidity;

we ſmile at ſeeing ſuch a profuſion of labour employed to prove what good ſenſe alone was competent to have taught; but the truths to which I refer, at that time new, frequently decided the fate of a people: theſe men ſought them with an independent mind; they defended them with firmneſs; and to their influence is it to be aſcribed that human reaſon began to recover the recollection of its rights and its liberty.

In the quarrels that took place between the kings and the nobles, the kings ſecured the ſupport of the principal towns, either by granting privileges, or by reſtoring ſome of the natural rights of man: they endeavoured, by means of emancipations, to increaſe the number of thoſe who enjoyed the common right of citizens. And theſe men, re-born as it were to liberty, felt how much it behoved them, by the ſtudy of law and of hiſtory, to acquire a fund of information, an authority of opinion, that might ſerve to counterbalance the military power of the feodal tyranny.

The rivalſhip that exiſted between the emperors and the popes prevented Italy from uniting under a ſingle maſter, and preſerved there a great number of independent ſocieties. In theſe petty ſtates, it was neceſſary to add the power of perſuaſion to that of force, and to employ negociation as often as arms: and as this political war was founded, in reality, in a war of opinion, and as Italy had never abſolutely loſt its taſte for ſtudy, this country may be conſidered, reſpecting Europe, as a

ſeedplot of knowledge, inconſiderable indeed as yet, but which promiſed a ſpeedy and vigorous increaſe.

In fine, hurried on by religious enthuſiaſm, the weſtern nations engaged in the conqueſt of places rendered holy, as it was ſaid, by the miracles and death of Chriſt: and this zeal, at the ſame time that it was favourable to liberty, by weakening and impoveriſhing the nobles, extended the connection of the people of Europe with the Arabians, a connection which their mixture with Spain had before formed, and their commerce with Piſa, Genoa, and Venice cemented. Their language was ſtudied, their books were read, part of their diſcoveries was acquired; and if the Europeans did not ſoar above the point in which the ſciences had been left by the Arabians, they at leaſt felt the ambition of rivaling them.

Theſe wars, undertaken with ſuperſtitious views, ſerved to deſtroy ſuperſtition. The ſpectacle of ſuch a multitude of religions excited at length in men of ſenſe a total indifference for creeds, alike impotent in refining the paſſions, and curing the vices of mankind; a uniform contempt for that attachment, equally ſincere, equally obſtinate, of ſectaries, to opinions contradictory to each other.

Republics were formed in Italy, of which ſome were imitations of the Greek republics, while others attempted to reconcile the ſervitude of a ſubject people with the liberty and democratic equality of a ſovereign one. In

Germany, in the north, ſome towns, obtaining almoſt entire independence, were governed by their own laws. In certain parts of Switzerland, the people threw off the chains both of feodal and of royal power. In almoſt all the great ſtates imperfect conſtitutions ſprung up, in which the authority of raiſing ſubſidies, and of making new laws, was divided ſometimes between the king, the nobles, the clergy and the people, and ſometimes between the king, the barons and the commons; in which the people, though not yet exempt from a ſtate of humiliation, were at leaſt ſecure from oppreſſion; in which all that truly compoſed a nation were admitted to the right of defending its intereſts, and of being heard by thoſe who had the regulation of its deſtiny. In England a celebrated act, ſolemnly ſworn by the king, and great men of the realm, ſecured the rights of the barons, and ſome of the rights of men.

Other nations, provinces, and even cities, obtained alſo charters of a ſimilar nature, but leſs celebrated, and not ſo ſtrenuouſly defended. They are the origin of thoſe declarations of rights, regarded at preſent by every enlightened mind as the baſis of liberty; and of which the ancients neither had nor could have an idea, becauſe their inſtitutions were ſullied by domeſtic ſlavery, becauſe with them the right of citizenſhip was hereditary, or conferred by voluntary adoption, and becauſe they never arrived at the knowledge of rights which are inherent in the ſpecies, and belong with a ſtrict equality to all mankind.

In France, England, and other great nations, the people appeared desirous of resuming their true rights; but blinded by the sense of oppression, rather than enlightened by reason, the only fruit of its efforts were outrages, that were soon expiated by acts of vengeance more barbarous, and particularly more unjust, and pillages accompanied with greater misery than either.

In England the principles of Wickliffe, the reformer, had given rise to one of these commotions, carried on under the direction of some of his disciples, and which afforded a presage of attempts, more systematic and better combined, that would be made by the people under other reformers, and in a more enlightened age.

The discovery of a manuscript of the Justinian code produced the revival of the study of jurisprudence, as well as of legislation, and served to render these less barbarous even among the people who knew how to derive profit from the discovery, without treating the code as of sacred obligation.

The commerce of Pisa, Genoa, Florence, Venice, some cities of Belgia, and free towns of Germany, embraced the Mediterranean, the Baltic, and the coasts of the European ocean. The precious commodities of the Levant were sought by the merchants of those places in the ports of Egypt, and at the extremities of the Black Sea.

Polity, legislation, national economy, were not yet converted into sciences; the principles of them were

neither enquired after, inveſtigated, nor developed; but as the mind began to be enlightened by experience, obſervations were collected tending to lead thereto, and men became verſed in the intereſts that muſt cauſe the want of them to be felt.

Ariſtotle was only known at firſt by a tranſlation of his works made from the Arabic. His philoſophy, perſecuted at the beginning, ſoon gained footing in all the ſchools. It introduced there no new light, but it gave more regularity, more method to that art of reaſoning which theological diſputes had called into exiſtence. This ſcholaſtic diſcipline did not lead to the diſcovery of truth; it did not even ſerve for the diſcuſſion and accurate valuation of its proofs, but it whetted the minds of men; and the taſte for ſubtle diſtinctions, the neceſſity of continually dividing and ſubdividing ideas, of ſeizing their niceſt ſhades, and expreſſing them in new words, the apparatus which was in the firſt inſtance employed to embarraſs one's enemy in a diſpute, or to eſcape from his toils, was the original ſource of that philoſophical analyſis to which we have ſince been ſo highly indebted for our intellectual progreſs.

To theſe diſciplinarians we are indebted for the greater accuracy that may have been obtained reſpecting the Supreme Being and his attributes; reſpecting the diſtinction between the firſt cauſe, and the univerſe which it is ſuppoſed to govern; reſpecting the farther

diſtinction between mind and matter; reſpecting the different ſenſes that may be affixed to the word *liberty*; reſpecting the meaning of the word *creation*; reſpecting the manner of diſtinguiſhing from each other the different operations of the human mind, and of claſſing the ideas it forms of objects and their properties.

But this method could not fail to retard in the ſchools the advancement of the natural ſciences. Accordingly the whole picture of theſe ſciences at this period will be found merely to comprehend a few anatomical reſearches; ſome obſcure productions of chymiſtry, employed in the diſcovery of the grand ſecret alone; a ſlight application to geometry and algebra, that fell ſhort of the diſcoveries of the Arabians, and did not even extend to a complete underſtanding of the works of the ancients; and laſtly, ſome aſtronomical ſtudies and calculations, confined to the formation and improvement of tables, and depraved by an abſurd mixture of aſtrology. Meanwhile the mechanical arts began to approach the degree of perfection which they had preſerved in Aſia. In the ſouthern countries of Europe the culture of ſilk was introduced; windmills as well as paper-mills were eſtabliſhed; and the art of meaſuring time ſurpaſſed the bounds which it had acquired either among the Ancients or the Arabians.

In ſhort, two important diſcoveries characteriſe this epoch. The property poſſeſſed by the loadſtone, of pointing always to the ſame quarter of the heavens, a

property known to the Chineſe, and employed by them in ſteering their veſſels, was alſo obſerved in Europe. The compaſs came into uſe, an inſtrument which gave activity to commerce, improved the art of navigation, ſuggeſted the idea of voyages to which we have ſince owed the knowledge of a new world, and enabled man to take a ſurvey of the whole extent of the globe on which he is placed. A chymiſt, by mixing an inflammable matter with ſaltpetre, diſcovered the ſecret of that powder which has produced ſo unexpected a revolution in the art of war. Notwithſtanding the terrible effect of fire-arms, in diſperſing an army, they have rendered war leſs murderous, and its combatants leſs brutal. Military expeditions are more expenſive; wealth can balance force; even the moſt warlike people feel the neceſſity of providing and ſecuring the means of combating, by the acquiſition of the riches of commerce and the arts. Poliſhed nations have no longer any thing to apprehend from the blind courage of barbarian tribes. Great conqueſts, and the revolutions which follow, are become almoſt impoſſible.

That ſuperiority which an armour of iron, which the art of conducting a horſe almoſt invulnerable from his accoutrements, of managing the lance, the club, or the ſword, gave the nobility over the people, is completely done away: and the removal of this impediment to the liberty and real equality of mankind, is the reſult

of an invention, that, on the firſt glance, ſeemed to threaten the total extirpation of the human race.

In Italy, the language arrived almoſt at its perfection about the fourteenth century. The ſtyle of Dante is often grand, preciſe, energetic. Boccace is graceful, ſimple, and elegant. The ingenious and tender Petrarch has not yet become obſolete. In this country, whoſe happy climate nearly reſembles that of Greece, the models of antiquity were ſtudied; attempts were made to transfuſe into the new language ſome of their beauties, and to produce new beauties of a ſimilar ſtamp. Already ſome productions gave reaſon to hope that, rouſed by the view of ancient monuments, inſpired by thoſe mute but eloquent leſſons, genius was about, for the ſecond time, to to embelliſh the exiſtence of man, and provide for him thoſe pure pleaſures, the enjoyment of which is free to all, and becomes greater in proportion as it is participated.

The reſt of Europe followed at an humble diſtance; but a taſte for letters and poetry began at leaſt to give a poliſh to languages that were ſtill in a ſtate almoſt of barbarity.

The ſame motives which had rouſed the minds of men from their long lethargy, muſt alſo have directed their exertions. Reaſon could not be appealed to for the deciſion of queſtions, of which oppoſite intereſts had compelled the diſcuſſion. Religion, far from acknowledging its power, boaſted of having ſubjected and humbled it. Politics conſidered as juſt what had been conſe-

crated by compact, by conſtant practice, and ancient cuſtoms.

No doubt was entertained that the rights of man were written in the book of nature, and that to conſult any other would be to depart from and violate them. Meanwhile it was only in the ſacred books, in reſpected authors, in the bulls of popes, in the reſcripts of kings, in regiſters of old uſages, and in the annals of the church, that maxims or examples were ſought from which to infer thoſe rights. The buſineſs was never to examine the intrinſic merits of a principle, but to interpret, to appreciate, to ſupport or to annul by other texts thoſe upon which it might be founded. A propoſition was not adopted becauſe it was true, but becauſe it was written in this or that book, and had been embraced in ſuch a country and ſuch an age.

Thus the authority of men was every where ſubſtituted for that of reaſon: books were much more ſtudied than nature, and the opinions of antiquity obtained the preference over the phenomena of the univerſe. This bondage of the mind, in which men had not then the advantage of enlightened criticiſm, was ſtill more detrimental to the progreſs of the human ſpecies, by corrupting the method of ſtudy, than by its immediate effects. And the ancients were yet too far from being equalled, to think of correcting or ſurpaſſing them.

Manners preſerved, during this epoch, their corruption and ferocity; religious intolerance was even more

active; and civil diſcords, and the inceſſant wars of a crowd of petty ſovereigns, ſucceeded the invaſions of the barbarians, and the peſt, ſtill more fatal, of ſanguinary feuds. The gallantry indeed of the miniſters and the troubadours, the inſtitution of orders of chivalry, profeſſing generoſity and frankneſs, devoting themſelves to the maintenance of religion, the relief of the oppreſſed, and the ſervice of the fair, were calculated to infuſe into manners more mildneſs, decorum, and dignity. But the change, confined to courts and caſtles, reached not to the bulk of the people. There reſulted from it a little more equality among the nobles, leſs perfidy and cruelty in their relations with each other; but their contempt for the people the inſolence of their tyranny, their audacious robberies, continued the ſame; and nations, oppreſſed as before, were as before ignorant, barbarous and corrupt.

This poetical and military gallantry, this chivalry, derived in great meaſure from the Arabians, whoſe natural generoſity long reſiſted in Spain ſuperſtition and deſpotiſm, had doubtleſs their uſe: they diffuſed the ſeeds of humanity, which were deſtined in happier periods to exhibit their fruit; and it was the general character of this epoch, that it diſpoſed the human mind for the revolution which the diſcovery of printing could not but introduce, and prepared the ſoil which the following ages were to cover with ſo rich and ſo abundant an harveſt.

## EIGHTH EPOCH.

*From the Invention of Printing, to the Period when the Sciences and Philoſophy threw off the Yoke of Authority.*

THOSE who have reflected but ſuperficially upon the march of the human mind in the diſcovery, whether of the truths of ſcience, or of the proceſſes of the arts, muſt be aſtoniſhed that ſo long a period ſhould elapſe between the knowledge of the art of taking impreſſions of drawings, and the diſcovery of that of printing characters.

Some engravers of plates had doubtleſs conceived this idea of the application of their art; but they were more ſtruck with the difficulty of executing it, than with the advantages of ſucceſs: and it is fortunate that they did not comprehend it in all its extent; ſince prieſts and kings would infaliably have united to ſtifle, from its birth, the enemy that was to unmaſk their hypocriſy, and hurl them from their thrones.

The preſs multiplies indefinitely, and at a ſmall expence, copies of any work. Thoſe who can read are hence enabled to furniſh themſelves with books ſuitable to their taſte and their wants; and this facility of exerciſing the talent of reading, has increaſed and propagated the deſire of learning it.

Theſe multiplied copies, ſpreading themſelves with greater rapidity, facts and diſcoveries not only acquire a more extenſive publicity, but acquire it alſo in a ſhorter ſpace of time. Knowledge has become the object of an active and univerſal commerce.

Printers were obliged to ſeek manuſcripts, as we ſeek at preſent works of extraordinary genius. What was read before by a few individuals only, might now be peruſed by a whole people, and ſtrike almoſt at the ſame inſtant every man that underſtood the ſame language.

The means are acquired of addreſſing remote and diſperſed nations. A new ſpecies of tribune is eſtabliſhed, from which are communicated impreſſions leſs lively, but at the ſame time more ſolid and profound; from which is exerciſed over the paſſions an empire leſs tyrannical, but over reaſon a power more certain and durable; where all the advantage is on the ſide of truth, ſince what the art may loſe in point of ſeduction, is more than counterbalanced by the illumination it conveys. A public opinion is formed, powerful by the number of thoſe who ſhare in it, energetic, becauſe the motives that determine it act upon all minds at once, though at conſiderable diſtances from each other. A tribunal is erected in favour of reaſon and juſtice, independent of all human power, from the penetration of which it is difficult to conceal any thing, from whoſe verdict there is no eſcape.

New inventions, the hiſtory of the firſt ſteps in the road to a diſcovery, the labours that prepare the way for it, the views that ſuggeſt the idea or give riſe merely to the wiſh of purſuing it, theſe, communicating themſelves with celerity, furniſh every individual with the united means which the efforts of all have been able to create, and genius appears to have more than doubled its powers.

Every new error is reſiſted from its birth; frequently attacked before it has diſſeminated itſelf, it has not time to take root in the mind. Thoſe which, imbibed from infancy, are identified in a manner with the reaſon of every individual, and by the influence of hope or of terror endeared to the exiſtence of weak underſtandings have been ſhaken, from this circumſtance alone, that it is now impoſſible to prevent their diſcuſſion, impoſſible to conceal that they are capable of being examined and rejected, impoſſible they ſhould withſtand the progreſs of truths which, daily acquiring new light, muſt conclude at laſt with diſplaying all the abſurdity of ſuch errors.

It is to the preſs we owe the poſſibility of ſpreading thoſe publications which the emergency of the moment, or the tranſient fluctuations of opinion, may require, and of intereſting thereby in any queſtion, treated in a ſingle point of view, whole communities of men reading and underſtanding the ſame language.

All thoſe means which render the progreſs of the human mind more eaſy, more rapid, more certain, are

alſo the benefits of the preſs. Without the inſtrumentality of this art, ſuch books could not have been multiplied as are adapted to every claſs of readers, and every degree of inſtruction. To the preſs we owe thoſe continued diſcuſſions which alone can enlighten doubtful queſtions, and fix upon an immoveable baſis, truths too abſtract, too ſubtile, too remote from the prejudices of the people or the common opinion of the learned, not to be ſoon forgotten and loſt. To the preſs we owe thoſe books purely elementary, dictionaries, works in which are collected, with all their details, a multitude of facts, obſervations, and experiments, in which all their proofs are developed, all their difficulties inveſtigated. To the preſs we owe thoſe valuable compilations, containing ſometimes all that has been diſcovered, written, thought, upon a particular branch of ſcience, and ſometimes the reſult of the annual labours of all the literati of a country. To the preſs we owe thoſe tables, thoſe catalogues, thoſe pictures of every kind, of which ſome exhibit a view of inductions which the mind could only have acquired by the moſt tedious operations; others preſent at will the fact, the diſcovery, the number, the method, the object which we are deſirous of aſcertaining; while others again furniſh, in a more commodious form and a more arranged order, the materials from which genius may faſhion and derive new truths.

To theſe benefits we ſhall have occaſion to add others, when we proceed to analyſe the effects that have

ariſen from the ſubſtitution of the vernacular tongue of each country, in the room of the almoſt excluſive application, which had preceded, ſo far as relates to the ſciences, of one language, the common medium of communication between the learned of all nations.

In ſhort, is it not the preſs that has freed the inſtruction of the people from every political and religious chain? In vain might either deſpotiſm invade our ſchools; in vain might it attempt, by rigid inſtitutions, invariably to fix what truths ſhall be preſerved in them, what errors inculcated on the mind; in vain might chairs, conſecrated to the moral inſtruction of the people, and the tuition of youth in philoſophy and the ſciences, be obliged to deliver no doctrines but ſuch as are favourable to this double tyranny: the preſs can diffuſe at the ſame time a pure and independent light. That inſtruction which is to be acquired from books in ſilence and ſolitude, can never be univerſally corrupted: a ſingle corner of the earth free to commit their leaves to the preſs, would be a ſufficient ſecurity. How admiſt that variety of productions, amidſt that multitude of exiſting copies of the ſame book, amidſt impreſſions continually renewed, will it be poſſible to ſhut ſo cloſely all the doors of truth, as to leave no opening, no crack or crevice by which it may enter? If it was difficult even when the buſineſs was to deſtroy a few copies only of a manuſcript, to prevent for ever its revival, when it was ſufficient to proſcribe a truth, or opinion, for a certain number of years to devote

it to eternal oblivion, is not this difficulty now rendered impoſſible, when it would require a vigilance inceſſantly occupied, and an activity that ſhould never ſlumber? And even ſhould ſucceſs attend the ſuppreſſion of thoſe too palpable truths, that wound directly the intereſts of inquiſitors, how are others to be prevented from penetrating and ſpreading, which include thoſe proſcribed truths without ſuffering them to be perceived, which prepare the way, and muſt one day infallibly lead to them? Could it be done without obliging the perſonages in queſtion to throw off that maſk of hypocriſy, the fall of which would prove no leſs fatal than truth itſelf to the reign of error? We ſhall accordingly ſee reaſon triumphing over theſe vain efforts: we ſhall ſee her in this war, a war continually reviving, and frequently cruel, ſucceſsful alike againſt violence and ſtratagem; braving the flames, and reſiſting ſeduction; cruſhing in turn, under its mighty hand, both the fanatical hypocriſy which requires for its dogmas a ſincere adoration, and the political hypocriſy imploring on its knees that it may be allowed to enjoy in peace the profit of errors, in which, if you will take its word, it is no leſs advantageous to the people than to itſelf, that they ſhould for ever be plunged.

The invention of the art of printing nearly coincides with two other events, of which one has exerciſed an immediate influence on the progreſs of knowledge, while the influence of the other on the deſtiny of the whole

human ſpecies can never ceaſe but with the ſpecies itſelf.

I refer to the taking of Conſtantinople by the Turks, and the diſcovery both of the new world, and of the route which has opened to Europe a direct communication with the eaſtern parts of Africa and Aſia.

The Greek literati, flying from the ſovereignty of the Tartars, ſought an aſylum in Italy. They acquired the ability of reading, in their original language, the poets, orators, hiſtorians, philoſophers, and antiquarians of Greece. They firſt furniſhed manuſcripts, and ſoon after editions of the works of thoſe authors. The veneration of the ſtudious was no longer confined to what they agreed in calling the doctrine of Ariſtotle. They ſtudied this doctrine in his own writings. They ventured to inveſtigate and oppoſe it. They contraſted him with Plato: and it was advancing a ſtep towards throwing off the yoke, to acknowledge in themſelves the right of chooſing a maſter.

The peruſal of Euclid, Archimedes, Diophantus, and Ariſtotle's philoſophical book upon animals, rekindled the genius of natural philoſophy and of geometry; while the antichriſtian opinions of philoſophers awakened ideas that were almoſt extinct of the ancient prerogatives of human reaſon.

Intrepid individuals, inſtigated by the love of glory and a paſſion for diſcoveries, had extended for Europe

the bounds of the univerſe, had exhibtted a new heaven, and opened to its view an unknown earth. Gama had penetrated into India, after having purſued with indefatigable patience the immenſe extent of the African coaſts; while Columbus, conſigning him to the waves of the Atlantic ocean, had reached that country, hitherto unknown, extending from the weſt of Europe to the eaſt of Aſia.

If this paſſion, whoſe reſtleſs activity, embracing at that period every object, gave promiſe of advantages highly important to the progreſs of the human ſpecies, if a noble curioſity had animated the heroes of navigation, a mean and cruel avarice, a ſtupid and brutal fanaticiſm governed the kings and robbers who were to reap the profits of their labour. The unfortunate beings who inhabited theſe new countries were not treated as men, becauſe they were not chriſtians. This prejudice, more degrading to the tyrants than the victims, ſtifled all ſenſe of remorſe, and abandoned, without controul, to their inextinguiſhable thirſt for gold and for blood, thoſe greedy and unfeeling men that Europe diſgorged from her boſom. The bones of five millions of human beings have covered the wretched countries to which the Spaniards and Portugueze tranſported their avarice, their ſuperſtition, and their fury. Theſe bones will plead to everlaſting ages againſt the doctrine of the political utility of religions, which is ſtill able to find its apologiſts in the world.

It is in this epoch only of the progreſs of the human mind, that man has arrived at the knowledge of the globe which he inhabits; that he has been able to ſtudy, in all its countries, the ſpecies to which he belongs, modified by the continued influence of natural cauſes, or ſocial inſtitutions; that he has had an opportunity of obſerving the productions of the earth, or of the ſea, in all temperatures and climates. And accordingly, among the happy conſequences of the diſcoveries in queſtion, may be included the reſources of every kind which thoſe productions afford to mankind, and which, ſo far from being exhauſted, men have yet no idea of their extent; the truths which the knowledge of thoſe objects may have added to the ſciences, or the long received errors that may thereby have been deſtroyed; the commercial activity that has given new life to induſtry and navigation, and, by a neceſſary chain of connection, to all the arts and all the ſciences: and laſtly, the force that free nations have acquired from this activity by which to reſiſt tyrants, and ſubjected nations to break their chains, and free themſelves at leaſt from feodal deſpotiſm. But theſe advantages will never expiate what the diſcoveries have coſt to ſuffering humanity, till the moment when Europe, abjuring the ſordid and oppreſſive ſyſtem of commercial monopoly, ſhall acknowledge that men of other climates, equals and brothers by the will of nature, have never been formed to nouriſh the pride and avarice of

a few privileged nations; till, better informed reſpecting its true intereſts, it ſhall invite all the people of the earth to participate in its independence, its liberty, and its illumination. Unfortunately, we have yet to learn whether this revolution will be the honourable fruit of the advancement of philoſophy, or only, as we have hitherto ſeen, the ſhameful conſequence of national jealouſy, and the enormous exceſſes of tyranny.

Till the preſent epoch the crimes of the prieſthood had eſcaped with impunity. The cries of oppreſſed humanity, of violated reaſon, had been ſtifled in flames and in blood. The ſpirit which dictated thoſe cries was not extinct: but the ſilence occaſioned by the operation of terror emboldened the prieſthood to farther outrages. At laſt, the ſcandal of farming to the monks the privilege of ſelling in taverns and public places the expiation of ſins, occaſioned a new exlpoſion. Luther, holding in one hand the ſacred books, expoſed with the other the right which the Pope had arrogated to himſelf of abſolving crimes and ſelling pardons; the inſolent deſpotiſm which he exerciſed over the biſhops, for a long time his equals; the fraternal ſupper of the primitive chriſtians, converted, under the name of *maſs*, into a ſpecies of magical incantation and an object of commerce; prieſts condemned to the crime of irrevocable celibacy; the ſame cruel and ſcandulous law extended to the monks and nuns with which pontifical ambition had inundated and polluted the church; all

the ſecrets of the laity conſigned, by means of confeſſion, to the intrigues and the paſſions of prieſts; God himſelf, in ſhort, ſcarcely retaining a feeble ſhare in the adorations beſtowed in profuſion upon bread, men, bones and ſtatues.

Luther announced to the aſtoniſhed multitude, that theſe diſguſting inſtitutions formed no part of chriſtianity, but on the contrary were its corruption and ſhame; and that, to be faithful to the religion of Jeſus, it was firſt of all neceſſary to abjure that of his prieſts. He employed equally the arms of logic and erudition, and the no leſs powerful weapon of ridicule. He wrote at once in German and in Latin. It was no longer as in the days of the Abigenſes, or of John Huſs, whoſe doctrine, unknown beyond the walls of their churches, was ſo eaſily calumniated. The German books of the new apoſtles penetrated at the ſame time into every village of the empire, while their Latin productions rouſed all Europe from the ſhameful ſleep into which ſuperſtition had plunged it. Thoſe whoſe reaſon had outſtripped the reformers, but whom fear had retained in ſilence; thoſe who were tormented with ſecret doubts, but which they trembled to avow even to their conſciences; thoſe who, more ſimple, were unacquainted with all the extent of theological abſurdities; who, having never reflected upon queſtions of controverſy, were aſtoniſhed to learn that they had the power of chuſing between different opinions; entered eagerly

into theſe diſcuſſions, upon which they conceived depended at once their temporal intereſts and their eternal felicity.

All the chriſtian part of Europe, from Sweden to Italy, and from Hungary to Spain, was in an inſtant covered with the partiſans of the new doctrines; and the reformation would have delivered from the yoke of Rome all the nations that inhabited it, if the miſtaken policy of certain princes had not relieved that very ſacerdotal ſceptre which had ſo frequently fallen upon the heads of kings.

This policy, which their ſucceſſors unhappily have yet not abjured, was to ruin their ſtates by ſeeking to add to them, and to meaſure their power by the extent of their territory, rather than by the number of their ſubjects.

Thus, Charles the fifth and Francis the firſt, while contending for Italy, ſacrificed to the intereſt of keeping well with the pope, that ſuperior intereſt of profiting by the advantages offered by the reformation to every country that ſhould have the wiſdom to adopt it.

Perceiving that the princes of the empire were favourable to opinions calculated to augment their power and their wealth, the emperor became the partiſan and ſupporter of the old abuſes, actuated by the hope that a religious war would furniſh an opportunity of invading their ſtates, and deſtroying their independence; while Francis imagined that, by burning the proteſtants, and protecting at the ſame time their leaders in Germany, he

ſhould preſerve the friendſhip of the Pope, without loſing his valuable allies.

But this was not their only motive. Deſpotiſm has alſo its inſtinct; and that inſtinct ſuggeſted to theſe kings, that men, after ſubjecting religious prejudices to the examination of reaſon, would ſoon extend their enquiries to prejudices of another ſort; that, enlightened upon the uſurpations of popes, they might wiſh at laſt to be equally enlightened upon thoſe of princes; and that the reform of eccleſiaſtical abuſes, beneficial as it was to royal power, might involve the reform of abuſes, ſtill more oppreſſive, upon which that power was founded. Accordingly, no king of any conſiderable nation favoured voluntarily the party of the reformers. Henry the eighth, terrified at the pontifical anathema, joined in the perſecution againſt them. Edward and Elizabeth, unable to embrace popery without pronouncing themſelves uſurpers, eſtaliſhed in England the faith and worſhip that approached neareſt to it. The proteſtant monarchs of Great Britain have indeed uniformly favoured the catholic religion, whenever it has ceaſed to threaten them with a pretender to the crown.

In Sweden and Denmark, the eſtablſhment of the religion of Luther was conſidered by their kings only as a neceſſary precaution to ſecure the expulſion of the catholic tyrant, to whoſe deſpotiſm they ſucceeded; and in the Pruſſian monarchy, founded by a philoſophical prince, we already perceive his ſucceſſor unable to

diſguiſe his ſecret attachment to this religion, ſo dear to the hearts of ſovereigns.

Religious intolerance was common to every ſect, and communicated itſelf to all the governments. The papiſts perſecuted the reformed communions; while theſe, pronouncing anathemas againſt each other, joined at the ſame time againſt the anti-trinitarians, who, more conſiſtent in their conduct, had tried every doctrine, if not by the touchſtone of reaſon, at leaſt by that of an enlightened criticiſm, and who did not ſee the neceſſity of freeing themſelves from one ſpecies of abſurdity, to fall into others equally diſguſting.

This intolerance ſerved the cauſe of popery. For a long time there had exiſted in Europe, and eſpecially in Italy, a claſs of men who, rejecting every kind of ſuperſtition, indifferent alike to all modes of worſhip, governed only by reaſon, regarded religion as of human invention, at which one might laugh in ſecret, but towards which prudence and policy dictated an outward reſpect.

This free-thinking aſſumed afterwards ſuperior courage; and, while in the ſchools the philoſophy of Ariſtotle, imperfectly underſtood, had been employed to improve the ſubtleties of theology, and render ingenious what would naturally have borne the features of abſurdity, ſome men of learning eſtabliſhed upon his true doctrine a ſyſtem deſtructive of every religious idea, in which the human ſoul was conſidered only as a faculty

that vaniſhed with life, and in which no other providence, no other ruler of the world was admitted than the neceſſary laws of nature. This ſyſtem was combated by the Platoniſts, whoſe ſentiments, reſembling what has ſince been called by the name of deiſm, were more terrifying ſtill to ſacerdotal orthodoxy.

But the operation of puniſhment ſoon put a ſtop to this impolitic boldneſs. Italy and France were polluted with the blood of thoſe martyrs to the freedom of thought. All ſects, all governments, every ſpecies of authority, inimical as they were to each other in every point elſe, ſeemed to be of accord in granting no quarter to the exerciſe of reaſon. It was neceſſary to cover it with a veil, which, hiding it from the obſervation of tyrants might ſtill permit it to be ſeen by the eye of philoſophy.

Accordingly the moſt timid caution was obſerved reſpecting this ſecret doctrine, which had never failed of numerous adherents. It had particularly been propagated among the heads of governments, as well as among thoſe of the church; and, about the period of the reformation, the principles of religious Machiaveliſm became the only creed of princes, of miniſters, and of pontiffs. Theſe opinions had even corrupted philoſophy. What code of morals indeed was to be expected from a ſyſtem of which one of the principles is, that it is neceſſary to ſupport the morality of the people by falſe pretences; that men of enlightened minds have a right to deceive

them, provided they impoſe only uſeful truths, and to retain them in chains from which they have themſelves contrived to eſcape?

If the natural equality of mankind, the principal baſis of its rights, be the foundation of all genuine morality, what could it hope from a philoſophy, of which an open contempt of this equality and theſe rights is a diſtinguiſhing feature? This ſame philoſophy has contributed no doubt to the advancement of reaſon, whoſe reign it ſilently prepared; but ſo long as it was the only philoſophy, its ſole effect was to ſubſtitute hypocriſy in the place of fanaticiſm, and to corrupt, at the ſame time that it raiſed above prejudices, thoſe who preſided in the deſtiny of ſtates.

Philoſophers truly enlightened, ſtrangers to ambition, who contented themſelves with undeceiving men gradually and with caution, but without ſuffering themſelves at the ſame time to confirm them in their errors, theſe philoſophers would naturally have been inclined to embrace the reformation: but, deterred by the intolerance that every where diſplayed itſelf the majority were of opinion that they ought not to expoſe themſelves to the inconveniences of change, when by ſo doing, they would ſtill be ſubjected to ſimilar reſtraint. As they muſt have continued to ſhew a reſpect for abſurdities which they had already rejected, they ſaw no mighty advantage in having the number ſomewhat diminiſhed; they were fearful alſo of expoſing themſelves, by their abjuration,

to the appearance of a voluntary hypocriſy; and thus, by perſevering in their attachment to the old religion, they ſtrengthened it with the authority of their reputation.

The ſpirit which animated the reformers did not introduce a real freedom of ſentiment. Each religion, in the country in which it prevailed, had no indulgence but for certain opinions. Meanwhile, as the different creeds were oppoſed to each other, few opinions exiſted that had not been attacked or ſupported in ſome part of Europe. The new communions had beſide been obliged to relax a little from their dogmatical rigour. They could not, without the groſſeſt contradiction, confine the right of examination within the pale of their own church, ſince upon this right was founded the legitimacy of their ſeparation. If they refuſed to reſtore to reaſon its full liberty, they at leaſt conſented that its priſon ſhould be leſs confined: the chains were not broken, but they were rendered leſs burthenſome and more permanent. In ſhort, in thoſe countries where a ſingle religion had found it impracticable to oppreſs all the others, there was eſtabliſhed what the inſolence of the ruling ſect called by the name of toleration, that is, a permiſſion, granted by ſome men to other men, to believe what their reaſon adopts, to do what their conſcience dictates to them, to pay to their common God the homage they think beſt calculated to pleaſe him: and in theſe countries the tolerated doctrines might then be vindicated with more or leſs freedom.

We thus ſee making its appearance in Europe a ſort of freedom of thought, not for men, but for chriſtians: and, if we except France, for chriſtians only does it any where exiſt to this day.

But this intolerance obliged human reaſon to ſeek the recovery of rights too long forgotten, or which rather had never been properly known and underſtood.

Aſhamed at ſeeing the people oppreſſed, in the very ſanctuary of their conſcience, by kings, the ſuperſtitious or political ſlaves of the prieſthood, ſome generous individuals dared at length to inveſtigate the foundations of their power; and they revealed this grand truth to the world: that liberty is a bleſſing which cannot be alienated; that no title, no convention in favour of tyranny, can bind a nation to a particular family; that magiſtrates, whatever may be their appellation, their functions, or their power, are the agents, not the maſters, of the people; that the people have the right of withdrawing an authority originating in themſelves alone, whenever that authority ſhall be abuſed, or ſhall ceaſe to be thought uſeful to the intereſts of the community: and laſtly, that they have the right to puniſh, as well as to caſhier their ſervants.

Such are the opinions which Althuſius and Languet, and afterwards Needham and Harrington, boldly profeſſed, and inveſtigated thoroughly.

From deference to the age in which they lived, they too often build upon texts, authorites, and exam-

ples ; and their opinions appear to have been the result of the ſtrength of their minds, and dignity of their characters, rather than of an accurate analyſis of the true principles of ſocial order.

Meanwhile other philoſophers, more timid, contented themſelves with eſtabliſhing, between the people and kings, an exact reciprocity of duties and rights, and a mutual obligation to preſerve inviolate ſettled conventions. An hereditary magiſtrate might indeed be depoſed or puniſhed, but it was only upon his having infringed this ſacred contract, which was not the leſs binding on his family. This doctrine, which ſacrificed natural right, by bringing every thing under poſitive inſtitution, was ſupported both by civilians and divines. It was favourable to powerful men, and to the projects of the ambitious, as it ſtruck rather at the individual who might be inveſted with ſovereignty, than at ſovereignty itſelf. For this reaſon it was almoſt generally embraced by reformiſts, and adopted as a principle in political diſſentions and revolutions.

Hiſtory exhibits few ſteps of actual progreſs towards liberty during this epoch; but we ſee more order and efficacy in governments, and in nations a ſtronger and particularly a more juſt ſenſe of their rights. Laws are better combined ; they appear leſs frequently to be the immature and ſhapeleſs production of circumſtances and caprice; they are the offspring of men of learning, if

they cannot be ſaid as yet to be the children of philoſophy.

The popular commotions and revolutions which agitated England, France, and the republics of Italy, attracted the notice of philoſophers to that branch of politics which conſiſts in obſerving and predicting the effects that the conſtitution, laws and eſtabliſhments of a country are likely to produce upon the liberty of the people, and the proſperity, ſtrength, independence, and form of government of the ſtate. Some, in imitation of Plato, as More, for inſtance, and Hobbes, deduced from general poſitions the plan of an entire ſyſtem of ſocial order, and exhibited the model towards which it was neceſſary in practice continually to approach. Others, like Machiavel, ſought, in a profound inveſtigation of hiſtorical facts, the rules by which were to be obtained the future maſtery of nations.

The ſcience of political economy did not, in this epoch, exiſt. Princes eſtimated not the number of men, but of ſoldiers, in the ſtate; finance was the mere art of plundering the people, without driving them to the deſperation that ſhould end in revolt; and governments paid no other attention to commerce but that of loading it with taxes, of reſtricting it by privileges, or of diſputing for its monopoly.

The nations of Europe, occupied by the common intereſts that ſhould unite, or the oppoſite ones that

they conceived ought to divide them, felt the neceſſity of obſerving certain rules of conduct which, independently of treaties, were to operate in their pacific intercourſe; while other rules, reſpected even in the midſt of war, were calculated to ſoften its ferocity, to diminiſh its ravages, and to prevent at leaſt unproductive and unneceſſary calamities. I refer to the ſcience of the law of nations: but theſe laws unfortunately were ſought, not in reaſon and nature, the only authorities that independent nations may acknowledge, but in eſtabliſhed uſages and the opinions of antiquity. The rights of humanity, juſtice towards individuals, were leſs conſulted, in this buſineſs, than the ambition, the pride, and the avarice of governments.

In this epoch we do not obſerve moraliſts interrogating the heart of man, analyſing his faculties and his feelings, thereby to diſcover his nature, and the origin, law and ſanction of his duties. On the contrary, we ſee them employing all the ſubtlety of the ſchools to diſcover, reſpecting actions the lawfulneſs of which is uncertain, the preciſe limit where innocence ends, and ſin is to begin; to aſcertain what authority has the proper degree of weight to juſtify the practice of any of theſe dubious ſort of actions; to aſſiſt them in claſſing ſins methodically, ſometimes in genus and ſpecies, and ſometimes according to the reſpective heinouſneſs of their nature; and laſtly, to mark thoſe in particular of which the commiſſion of one only is ſufficient to merit eternal damnation.

The ſcience of morals, it is apparent, could not at that time have being, ſince prieſts alone enjoyed the privilege of being its interpreters and judges. Meanwhile, as a ſkilful mechanic, by ſtudying an uncouth machine, frequently derives from it the idea of a new one, leſs imperfect and truly uſeful; ſo did theſe very ſubtleties lead to the diſcovery, or aſſiſt in aſcertaining the degree of moral turpitude of actions or their motives, the order and limits of our duties, as well as the principles that ſhould determine our choice whenever theſe duties ſhall appear to claſh.

The reformation, by deſtroying, in the countries in which it was embraced, confeſſion, indulgences, and monks, refined the principles of morality, and rendered even manners leſs corrupt. It freed them from ſacerdotal expiations, that dangerous encouragement to vice, and from religious celibacy, the bane of every virtue, becauſe the enemy of the domeſtic virtues.

This epoch, more than all the reſt, was blotted and disfigured with acts of attrocious cruelty. It was the epoch of religious maſſacres, holy wars, and the depopulation of the new world. There we ſee eſtabliſhed, the ſlavery of ancient periods, but a ſlavery more barbarous, more productive of crimes againſt nature: and that mercantile avidity, trafficking with the blood of men, ſelling them like other commodities, having firſt purchaſed them by treaſon, robbery or murder, and dragging them from one hemiſphere to be devoted in another,

amidſt humiliation and outrages, to the tedious puniſhment of a lingering, a cruel, but infallible deſtruction.

At the ſame time hypocriſy covers Europe with executions at the ſtake, and aſſaſſinations. The monſter, fanaticiſm, maddened by the wounds it has received, appears to redouble its fury, and haſtens to burn its victims in heaps, fearful that reaſon might be approaching to deliver them from his hands.

Meanwhile we may obſerve ſome of thoſe mild but intrepid virtues making their appearance, which are the honour and conſolation of humanity. Hiſtory furniſhes names which may be pronounced without a bluſh. A few unſullied and mighty minds, uniting ſuperior talents to the dignity of their characters, relieve, here and there, theſe ſcenes of perfidy, of corruption, and of carnage. The picture of the human race is ſtill too dreary for the philoſopher to contemplate it without extreme mortification; but he no longer deſpairs, ſince the dawn of brighter hopes is exhibited to his view.

The march of the ſciences is rapid and brilliant. The Algebraic language becomes generalized, ſimplified and perfected, or rather it is now only that it was truly formed. The firſt foundations of the general theory of equations are laid, the nature of the ſolutions which they give is aſcertained, and thoſe of the third and fourth degree are reſolved.

The ingenious invention of logarithms, as abridging the operations of arithmetic, facilitates the application

of calculation to the various objects of nature and art, and thus extends the sphere of all those sciences in which a numerical process is one of the means of comparing the results of an hypothesis or theory with the actual phenomena, and thus arriving at a distinct knowledge of the laws of nature. In mathematics, in particular, the mere length and complication of the numerical process practically considered, bring us, upon certain occasions, to a term beyond which neither time, opportunity, nor even the stretch of our faculties, can carry us; this term, had it not been for the happy intervention of logarithms, would have also been the term beyond which science could never pass, or the efforts of the proudest genius proceed.

The law of the descent of bodies was discovered by Galileo, from which he had the ingenuity to deduce the theory of motion uniformly accelerated, and to calculate the curve described by a body impelled into the air with a given velocity, and animated by a force constantly acting upon it in parallel directions.

Copernicus revived the true system of the world, so long buried in oblivion, destroyed, by the theory of apparent motions, what the senses had found so much difficulty in reconciling, and opposed the extreme simplicity of the real motions resulting from this system, to the complication, bordering upon absurdity, of the Ptolemean hypothesis. The motions of the planets were better understood; and by the genius of Kepler were discovered

the forms of their orbits, and the eternal laws by which thoſe orbits perform their evolutions.

Galileo, applying to aſtronomy the recent diſcovery of teleſcopes, which he carried to greater perfection, opened to the view of mankind a new firmament. The ſpots which he obſerved on the diſk of the ſun led him to the knowledge of its rotation, of which he aſcertained the preciſe period, and the laws by which it was performed. He demonſtrated the phaſes of Venus, and diſcovered the four ſatellites that ſurround and accompany Jupiter in his immenſe orbit.

He alſo furniſhed an accurate mode of meaſuring time, by the vibrations of a pendulum.

Thus man owes to Galileo the firſt mathematical theory of a motion that is not at once uniform and rectilinear, as well as one of the mechanical laws of nature; while to Kepler he is indebted for the acquiſition of one of thoſe empirical laws, the diſcovery of which has the double advantage of leading to the knowldge of the mechanical law of which they expreſs the reſult, and of ſupplying ſuch degrees of this knowledge as man finds himſelf yet incapable of attaining.

The diſcovery of the weight of the air, and of the circulation of the blood, diſtinguiſh the progreſs of experimental philoſophy, born in the ſchool of Galileo, and of anatomy, already too far advanced not to form a ſcience diſtinct from that of medicine.

Natural hiſtory, and chymiſtry, in ſpite of its chimerical hopes and its enigmatical language, as well as medicine and ſurgery, aſtoniſh us by the rapidity of their progreſs, though we are frequently mortified at the ſight of the monſtrous prejudices which theſe ſciences ſtill retain.

Without mentioning the works of Geſner and Agricola containing ſuch a fund of real information, with ſo ſlight a mixture of ſcientific or popular errors, we obſerve Bernard de Paliſſi ſometimes diſplaying to us the quarries from which we derive the materials of our edifices; ſometimes maſſes of ſtone that compoſe our mountains formed from the ſkeletons of ſea animals, and authentic monuments of the ancient revolutions of the globe; and ſometimes explaining how the waters, raiſed from the ſea by evaporation, reſtored to the earth by rain, ſtopped by beds of clay, aſſembled in ſnow upon the hills, ſupply the eternal ſtreams of rivers, brooks, and fountains: while John Rei diſcovered thoſe combinations of air with metallic ſubſtances, which gave birth to the brilliant theories by which, within a few years, the bounds of chymiſtry have been ſo much extended.

In Italy the arts of epic poetry, painting and ſculpture, arrived at a perfection unknown to the ancients. In France, Corneille evinced that the dramatic art was about to acquire a ſtill nobler elevation; for whatever ſuperiority the enthuſiaſtical admirers of antiquity may ſuppoſe, perhaps with juſtice, the chefs-d'œuvres of its

firſt geniuſes to poſſeſs, it is by no means difficult, by comparing their works with the productions of France and of Italy, for a rational enquirer to perceive the real progreſs which the art itſelf has attained in the hands of the moderns.

The Italian language was completely formed, and in thoſe of other nations we ſee the marks of their ancient barbariſm continually diſappearing.

Men began to feel the utility of metaphyſics and grammar, and of acquiring the art of analyſing and explaining philoſophically both the rules and the proceſſes eſtabliſhed by cuſtom in the compoſition of words and phraſes.

We every where perceive, during this epoch, reaſon and authority ſtriving for the maſtery, a conteſt that prepared and gave promiſe of the triumph of the former.

This alſo was the period auſpicious to the birth of that ſpirit of criticiſm which alone can render erudition truly productive. It was ſtill neceſſary to examine what had been done by the ancients; but men were aware that, however they might admire, they were entitled to judge them. Reaſon, which ſometimes ſupported itſelf upon authority, and againſt which authority had been ſo frequently employed, was deſirous of appreciating the value of the aſſiſtance ſhe might derive therefrom, as well as the motive of the ſacrifice that was demanded of her. Thoſe who aſſumed authority for the baſis of their opinions, and the guide of their con-

duct, felt how important it was that they ſhould be ſure of the ſtrength of their arms, and not expoſe themſelves to the danger of having them broken to pieces upon the firſt attack of reaſon.

The habit of writing only in Latin upon the ſciences, philoſophy, juriſprudence, and even hiſtory, with a few exceptions, gradually yielded to the practice of employing the common language of the reſpective country. And here we may examine what influence upon the progreſs of the human mind was produced by this change, which rendered the ſciences more popular, but diminiſhed the facility with which the learned were able to follow them in their route; which cauſed a book to be read by more individuals of inferior information in a particular country, but by fewer enlightened minds through Europe in general; which ſuperſeded the neceſſity of learning Latin in a great number of men deſirous of inſtruction, without having the leiſure or the means of ſounding the depths of erudition, but at the ſame time obliged the philoſopher to conſume more time in acquiring a knowledge of different languages.

We may ſhow that, as it was impoſſible to make the Latin a vulgar tongue common to all Europe, the continuance of the cuſtom of writing in it upon the ſcienecs would have been attended with a tranſient advantage only to thoſe who ſtudied them; that the exiſtence of a ſort of ſcientific language among the learned of all nations, while the people of each indivi-

dual nation ſpoke a different one, would have divided men into two claſſes, would have perpetuated in the people prejudices and errors, would have placed an inſurmountable impediment to true equality, to an equal uſe of the ſame reaſon, to an equal knowledge of neceſſary truths; and thus by ſtopping the progreſs of the maſs of mankind, would have ended at laſt, as in the Eaſt, by putting a period to the advancement of the ſciences themſelves.

For a long time there had been no inſtruction but in churches and cloiſters.

The univerſities were ſtill under the domination of the prieſts. Compelled to reſign to the civil authority a part of their influence, they retained it without the ſmalleſt defalcation, ſo far as related to the early inſtruction of youth, that inſtruction which is equally ſought in all profeſſions, and among all claſſes of mankind. Thus they poſſeſſed themſelves of the ſoft and flexible mind of the child, of the boy, and directed at their pleaſure the firſt unfiniſhed thoughts of man. To the ſecular power they left the ſuperintendence of thoſe ſtudies which had for their object juriſprudence, medicine, ſcientifical analyſis, literature and the humanities, the ſchools of which were leſs numerous, and received no pupils who were not already broken to the ſacerdotal yoke.

In reformed countries the clergy loſt this influence. The common inſtruction, however, though dependent

on the government, did not ceaſe to be directed by a theological ſpirit; but it was no longer confined to members of the prieſthood. It ſtill corrupted the minds of men by religious prejudices, but it did not bend them to the yoke of ſacerdotal authority; it ſtill made fanatics, viſionaries, ſophiſts, but it no longer formed ſlaves for ſuperſtition.

Meanwhile education, being every where ſubjugated had corrupted every where the general underſtanding, by clogging the reaſon of children with the weight of the religious prejudices of their country, and by ſtifling in youth, deſtined to a ſuperior courſe of inſtruction, the ſpirit of liberty by means of political prejudices.

Left to himſelf, every man not only found between him and truth a cloſe and terrible phalanx of the errors of his country and age, but the moſt dangerous of thoſe errors were in a manner already rendered perſonal to him. Before he could diſſipate the errors of another, it was neceſſary he ſhould begin with aſcertaining his own; before he combated the difficulties oppoſed by nature to the diſcovery of truth, his underſtanding, ſo to ſpeak, was obliged to undergo a thorough repair. Inſtruction at this period conveyed ſome knowledge; but to render it uſeful, the operation of refining muſt take place, to ſeparate it from the droſs in which ſuperſtition and tyranny together had contrived to bury it.

We may ſhow what obſtacles, more or leſs powerful, theſe vices of education, thoſe religious and contradictory

creeds, that influence of the different forms of government, oppoſed to the progreſs of the human mind. It will be ſeen that this progreſs was by ſo much the ſlower and unequal, in proportion as the objects of ſpeculative enquiry intimately affected the ſtate of politics and religion; that philoſophy, in its moſt general ſenſe, as well as metaphyſics, the truths of which were in direct hoſtility to every kind of ſuperſtition, were more obſtinately retarded than political enquiry itſelf, the improvement of which was only dangerous to the authority of kings and ariſtocratic aſſemblies; and that the ſame obſervation will equally apply to the ſcience of material nature.

We may farther develope the other ſources of this inequality, as they may be traced in the objects of which each ſcience treats, and the methods to which it has recourſe.

In the ſame manner the ſources of inequality and counteraction, which operate reſpecting the very ſame ſcience in different countries, are alſo the joint effect of political and natural cauſes. We may enquire, in this inequality, what it is that is to be aſcribed to the different modes of religion, to the form of government, to the wealth of any nation, to its political importance, to its perſonal character, to its geographical ſituation, to the events and viciſſitudes it has experienced, in fine, to the accident which has produced in the midſt of it any of thoſe extraordinary men, whoſe influence, while

it extends over the whole human race, exerciſes itſelf with a double energy in a more reſtrained ſphere.

We may diſtinguiſh the progreſs of each ſcience as it is in itſelf, which has no other limit than the number of truths it includes within its ſphere, and the progreſs of a nation in each ſcience, a progreſs which is regulated firſt by the number of men who are acquainted with its leading and moſt important truths, and next by the number and nature of the truths ſo known.

In fine, we are now come to that point of civilization, at which the people derive a profit from intellectual knowledge, not only by the ſervices it reaps from men uncommonly inſtructed, but by means of having made of intellectual knowledge a ſort of patrimony, and employing it directly and in its proper form to reſiſt error, to anticipate or ſupply their wants, to relieve themſelves from the ills of life, or take off the poignancy of theſe ills by the intervention of additional pleaſure.

The hiſtory of the perſecutions to which the champions of liberty were expoſed, during this epoch, ought not to be forgotten. Theſe perſecutions will be found to extend from the truths of philoſophy and politics to thoſe of medicine, natural hiſtory and aſtronomy. In the eighth century an ignorant pope had perſecuted a deacon for contending that the earth was round, in oppoſition to the opinion of the rhetorical Saint Auſtin. In the ſeventeenth, the ignorance of another pope, much more inexcuſeable, delivered Galileo into the

hands of the inquiſition, accuſed of having proved the diurnal and annual motion of the earth. The greateſt genius that modern Italy has given to the ſciences, overwhelmed with age and infirmities, was obliged to purchaſe his releaſe from puniſhment and from priſon, by aſking pardon of God for having taught men better to underſtand his works, and to admire him in the ſimplicity of the eternal laws by which he governs the univerſe.

Meanwhile, ſo great was the abſurdity of the theologians, that, in condeſcenſion to human underſtanding, they granted a permiſſion to maintain the motion of the earth, at the ſame time that they inſiſted that it ſhould be only in the way of an hypotheſis, and that the faith ſhould receive no injury. The aſtronomers, on the other hand, did the exact oppoſite of this; they treated the motion of the earth as a reality, and ſpoke of its immoveableneſs with a deference only hypothetical.

The tranſition from the epoch we have been conſidering to that which follows, has been diſtinguiſhed by three extraordinary perſonages, Bacon, Galileo, and Deſcartes. Bacon has revealed the true method of ſtudying nature, by employing the three inſtruments with which ſhe has furniſhed us for the diſcovery of her ſecrets, obſervation, experiment and calculation. He was deſirous that the philoſopher, placed in the midſt of the univerſe, ſhould, as a firſt and neceſſary ſtep in his career, renounce every creed he had received, and even every notion he had formed, in order to create, as it

were, for himſelf, a new underſtanding, in which no idea ſhould be admitted but what was preciſe, no opinion but what was juſt, no truth of which the degree of certainty or probability had not been ſcrupulouſly weighed. But Bacon, though poſſeſſing in a moſt eminent degree the genius of philoſophy, added not thereto the genius of the ſciences; and theſe methods for the diſcovery of truth, of which he furniſhed no example, were admired by the learned, but produced no change in the march of the ſciences.

Galileo had enriched them with the moſt uſeful and brilliant diſcoveries; he had taught by his own example the means of arriving at the knowledge of the laws of nature in a way ſure and productive, in which men were not obliged to ſacrifice the hope of ſucceſs to the fear of being miſled. He founded the firſt ſchool in which the ſciences have been taught without a mixture of ſuperſtition, prejudice, or authority; in which every other means than experiment and calculation have been rigorouſly proſcribed; but confining himſelf excluſively to the mathematical and phyſical ſciences, he was unable to communicate to the general mind that impulſion which it ſeemed to want.

This honour was reſerved for the daring and ingenious Deſcartes. Endowed with a maſter genius for the ſciences, he joined example to precept, in exhibiting the method of finding and aſcertaining truth. This method he applied to the diſcovery of the laws of dioptrics, of the colliſion of bodies, and finally of a new

branch of mathematical ſcience, calculated to extend and enlarge the bounds of all the other branches.

He wiſhed to extend his method to every object of human intelligence; God, man, the univerſe, were in turn the ſubject of his meditations. If, in the phyſical ſciences, his march be leſs ſure than that of Galileo, if his philoſophy be leſs wary than that of Bacon, if he may be accuſed of not having ſufficiently availed himſelf of the leſſons of the one, and the example of the other, to diſtruſt his imagination, to interrogate nature by experiment alone, to have no faith but in calculation, to obſerve the univerſe, inſtead of inſtructing it, to ſtudy man inſtead of truſting to vague conjectures for a knowledge of his nature; yet the very boldneſs of his errors was inſtrumental to the progreſs of the human ſpecies. He gave activity to minds which the circumſpection of his rivals could not awake from their lethargy. He called upon men to throw off the yoke of authority, to acknowledge no influence but what reaſon ſhould avow: and he was obeyed, becauſe he ſubjected by his daring, and faſcinated by his enthuſiaſm.

The human mind was not yet free, but it knew that it was formed to be free. Thoſe who perſiſted in the deſire of retaining it in its fetters, or who attempted to forge new ones, were under the neceſſity of proving that they ought to be impoſed or retained, and it requires little penetration to foreſee that from that period they would ſoon be broken in pieces.

# NINTH EPOCH.

*From the Time of Descartes, to the Formation of the French Republic.*

WE have seen human reason forming itself slowly by the natural progress of civilization; superstition usurping dominion over it, thereby to corrupt it, and despotism degrading and stupefying the mental faculties by the operation of fear, and actual infliction of calamity.

One nation only escaped for a while this double influence. In that happy land, where liberty had kindled the torch of genius, the human mind, freed from the trammels of infancy, advanced towards truth with a firm and undaunted step. But conquest soon introduced tyranny, sure to be followed by superstition, its inseparable companion, and the whole race of man was re-plunged into darkness, destined, from appearance, to be eternal. The dawn, however, at length was observed to peep; the eyes, long condemned to obscurity, opened and shut their lids, inuring themselves gradually till they could gaze at the light, and genius

dared once again to ſhine forth upon the globe, from which, by fanaticiſm and barbarity, it ſo long had been baniſhed.

We have ſeen reaſon revolting at, and ſhaking off part of its chains, and by the continual acquiſition of new ſtrength preparing and haſtening the epoch of its liberty.

We have now to run through the period in which it compleated its emancipation; in which, ſubjected ſtill to a degree of bondage, it throws off, one by one, the remainder of its fetters; in which, free at length to purſue its courſe, it can no longer be ſtopped but by thoſe obſtacles, the occurrence of which is inevitable upon every new progeſs, as being the reſult of the conformation of the mind itſelf, or of the connection which nature has eſtabliſhed between our means of diſcovering truth, and the obſtacles ſhe oppoſes to our efforts.

Religious intolerance had obliged ſeven of the Belgic provinces to throw off the yoke of Spain, and to form themſelves into a federal republic. The ſame cauſe had revived in England a ſpirit of liberty, which, tired of long and ſanguinary commotions, ſat down at laſt contented with a conſtitution, admired for a while by philoſophers, but having at preſent no other ſupport than national ſuperſtition and political hypocriſy.

To ſacerdotal perſecution is it likewiſe to be aſcribed that the Swedes had the fortitude to regain a portion of their rights.

Meanwhile, amidſt the commotions occaſioned by theological conteſts, France, Spain, Hungary and Bohemia ſaw the feeble remains of their liberty, or of what, at leaſt, bore the ſemblance of liberty, totally vaniſh from their ſight.

Even in countries ſaid to be free, it is in vain to look for that freedom which violates none of the natural rights of man, and which ſecures their indefeaſible poſſeſſion and uncontrouled exerciſe. On the contrary, the liberty exiſting there, founded upon a poſitive right unequally ſhared, confers upon an individual prerogatives greater or leſs according to the town which he inhabits, the claſs in which he is born, the fortune he poſſeſſes, or the trade he may exerciſe; and a conciſe picture of theſe fantaſtical diſtinctions in different nations, will furniſh the beſt anſwer to thoſe men who are ſtill diſpoſed to vindicate the advantage and neceſſity of them.

In theſe countries, however, civil and perſonal liberty are guaranteed by the laws. If man be not all that he ought to be, ſtill the dignity of his nature is not totally degraded; ſome of his rights are at leaſt acknowledged; it can no longer be ſaid of him that he is a ſlave, but only that he does not yet know how to become truly free.

In nations among whom, during the ſame period, liberty may have incurred loſſes more or leſs real, ſo reſtricted were the political rights enjoyed by the generality of the people, that the annihilation of the ariſto-

cracy, almoſt deſpotic, under which they had groaned, ſeems to have been more than a compenſation. They have loſt the title of citizen, which inequality had nearly rendered illuſory; but the quality of man has been more reſpected, and royal deſpotiſm has ſaved them from a ſtate of feodal oppreſſion, an oppreſſion ſo much the more painful and humiliating, as the number and preſence of the tyrants are continually reviving the ſentiment of it.

In nations partially free the laws muſt neceſſarily have improved, becauſe the intereſts of thoſe who hold therein the reins of power, are not in all caſes at variance with the general intereſts of the people; and they muſt alſo have improved in deſpotic ſtates, either becauſe the intereſt of the public proſperity is ſometimes confounded with that of the deſpot, or becauſe, ſeeking to deſtroy the remains of authority in the nobles or the clergy, the deſpot himſelf thereby communicates to the laws a ſpirit of equality, of which the motive indeed was the eſtabliſhment of an equality of ſlavery, but which has often been attended with ſalutary conſequences.

We may here minutely explain the cauſes which have produced in Europe that ſpecies of deſpotiſm, of which neither the ages that preceded, nor the other quarters of the world, have furniſhed an example; a deſpotiſm almoſt abſolute, but which, reſtrained by opinion, influenced by the ſtate of knowledge, and tempered in a manner by its own intereſt, has frequently contributed

to the progreſs of wealth, induſtry, inſtruction, and ſometimes even to that of civil liberty.

The manners of men were meliorated by the mere decay of thoſe prejudices which had kept alive their ferocity, by the influence of commerce and induſtry, the natural enemies of diſorder and violence, from which wealth takes it flight, by the fear and terror occaſioned by the recollection, ſtill recent, of the barbarities of the preceding period, by a more general diffuſion of the philoſophical ideas of juſtice and equality, and laſtly by the ſlow but ſure effect of the progreſs of mental illumination.

Religious intolerance ſtill ſurvived; but it was merely in the way of precaution, as a homage to the prejudices of the people, or as a ſafeguard againſt their inconſtancy. It had loſt its fierceſt features. Executions at the ſtake, ſeldom reſorted to, were replaced by other modes of directing religious opinions, which, if they frequently proved more arbitrary, were however leſs barbarous, till at length perſecution appeared only at intervals, and reſulted chiefly from the inveteracy of former habit, or from temporary weakneſs and complaiſance.

In every nation, and upon every ſubject, the policy of government followed the ſteps not only of opinion, but even of philoſophy; it was however ſlowly, and with a ſort of reluctance: and we ſhall always find that, in proportion as there exiſts a conſiderable diſtance between

the point at which men of profound meditation arrive in the ſcience of politics and morals, and that attained by the generality of thinking men, whoſe ſentiments, when imbibed by the multitude, form what is called the public opinion, ſo thoſe who direct the affairs of a nation, whatever may be its form of government, are uniformly ſeen below the level of this opinion; they walk in its path, they purſue its courſe; but it is with ſo ſluggiſh a pace, that, ſo far from outſtripping, they never come up with it, and are always behind by a conſiderable number of years, and by a portion, no leſs conſiderable, of truths.

And now we arrive at the period when philoſophy, the moſt general and obvious effects of which we have before remarked, obtained an influence on the thinking claſs of men, and theſe on the people and their governments, that, ceaſing any longer to be gradual, produced a revolution in the entire maſs of certain nations, and gave thereby a ſecure pledge of the general revolution one day to follow that ſhall embrace the whole human ſpecies.

After ages of error, after wandering in all the mazes of vague and defective theories, writers upon politics and the law of nations at length arrived at the knowledge of the true rights of man, which they deduced from this ſimple principle: that *he is a being endowed with ſenſation, capable of reaſoning upon and underſtanding his intereſts, and of acquiring moral ideas.*

They ſaw that the maintenance of his rights was the only object of political union, and that the perfection of the ſocial art conſiſted in preſerving them with the moſt entire equality, and in their fulleſt extent. They perceived that the means of ſecuring the rights of the individual, conſiſting of general rules to be laid down in every community, the power of chooſing theſe means, and determining theſe rules, could veſt only in the majority of the community: and that for this reaſon, as it is impoſſible for any individual in this choice to follow the dictates of his own underſtanding, without ſubjecting that of others, the will of the majority is the only principle which can be followed by all, without infringing upon the common equality.

Each individual may enter into a previous engagement to comply with the will of the majority, which by this engagement becomes unanimity; he can however bind nobody but himſelf, nor can he bind himſelf except ſo far as the majority ſhall not violate his individual rights, after having recogniſed them.

Such are at once the rights of the majority over individuals, and the limits of theſe rights; ſuch is the origin of that unanimity, which renders the engagement of the majority binding upon all; a bond that ceaſes to operate when, by the change of individuals, this ſpecies of unanimity ceaſes to exiſt. There are objects, no doubt, upon which the majority would pronounce perhaps oftener in favour of error and miſchief, than in

favour of truth and happineſs ; ſtill the majority, and the majority only, can decide what are the objects which cannot properly be referred to its own deciſion; it can alone determine as to the individuals whoſe judgment it reſolves to prefer to its own, and the method which theſe individuals are to purſue in the exerciſe of their judgment; in fine, it has alſo an indiſpenſible authority of pronouncing whether the deciſions of its officers have or have not wounded the rights of all.

From theſe ſimple principles men diſcovered the folly of former notions reſpecting the validity of contracts between a people and its magiſtrates, which it was ſuppoſed could only be annulled by mutual conſent, or by a violation of the conditions by one of the parties; as well as of another opinion, leſs ſervile, but equally abſurd, that would chain a people for ever to the proviſions of a conſtitution when once eſtabliſhed, as if the right of changing it were not the ſecurity of every other right, as if human inſtitutions, neceſſarily defective, and capable of improvement as we become enlightened, were to be condemned to an eternal monotony. Accordingly the governors of nations ſaw themſelves obliged to renounce that falſe and ſubtle policy, which, forgetting that all men derive from nature an equality of rights, would ſometimes meaſure the extent of thoſe which it might think proper to grant by the ſize of territory, the temperature of the climate, the national character, the wealth of the people, the ſtate of commerce

and induſtry; and ſometimes cede them in unequal portions among the different claſſes of ſociety, according to their birth, their fortune, or their profeſſion, thereby creating contrary intereſts and jarring powers, in order afterwards to apply correctives, which, but for theſe inſtitutions, would not be wanted, and which, after all, are inadequate to the end.

It was now no longer practicable to divide mankind into two ſpecies, one deſtined to govern, the other to obey, one to deceive, the other to be dupes: the doctrine was obliged univerſally to be acknowledged, that all have an equal right to be enlightened reſpecting their intereſts, to ſhare in the acquiſition of truth, and that no political authorities appointed by the people for the benefit of the people, can be entitled to retain them in ignorance and darkneſs.

Theſe principles, which were vindicated by the generous Sydney, at the expence of his blood, and to which Locke gave the authority of his name, were afterwards developed with greater force, preciſion, and extent by Rouſſeau, whoſe glory it is to have placed them among thoſe truths henceforth impoſſible to be forgotten or diſputed.

Man is ſubject to wants, and he has faculties to provide for them; and from the application of theſe faculties, differently modified and diſtributed, a maſs of wealth is derived, deſtined to ſupply the wants of the community. But what are the principles by which the

formation or allotment, the preſervation or conſumption, the increaſe or diminution of this wealth is governed? What are the laws of that equilibrium between the wants and reſources of men which is continually tending to eſtabliſh itſelf; and from which reſults, on the one hand, a greater facility of providing for thoſe wants, and of conſequence an adequate portion of general felicity, when wealth increaſes, till it has reached its higheſt degree of advancement; and on the other, as wealth diminiſhes, greater difficulties, and of conſequence proportionate miſery and wretchedneſs, till abſtinence or depopulation ſhall have again reſtored the balance; How, in this aſtoniſhing multiplicity of labours and their produce, of wants and reſources; in this alarming, this terrible complication of intereſts, which connects the ſubſiſtence and well-being of an obſcure individual with the general ſyſtem of ſocial exiſtence, which renders him dependent on all the accidents of nature and every political event, and extends in a manner to the whole globe his faculty of experiencing privations or enjoyments; how is it that, in this ſeeming chaos, we ſtill perceive, by a general law of the moral world, the efforts of each individual for himſelf conducing to the good of the whole, and, notwithſtanding the open conflict of inimical intereſts, the public welfare requiring that each ſhouldund erſtand his own intereſt, and be able to purſue it freely and uncontrouled?

Hence it appears to be one of the rights of man that he ſhould employ his faculties, diſpoſe of his wealth, and provide for his wants in whatever manner he ſhall think beſt. The general intereſt of the ſociety, ſo far from reſtraining him in this reſpect, forbids, on the contrary, every ſuch attempt; and in this department of public adminiſtration, the care of ſecuring to every man the rights which he derives from nature, is the only ſound policy, the only controul which the general will can exerciſe over the individuals of the community.

But this principle acknowledged, there are ſtill duties incumbent upon the adminiſtrators of the general will, the ſovereign authority. It is for this authority to eſtabliſh the regulations which are deſtined to aſcertain, in exchanges of every kind, the weight, the bulk, the length, and quantity of things to be exchanged.

It is for this authority to ordain a common ſtandard of valuation, that may apply to all commodities and facilitate the calculation of their valuations and compariſon, and which, bearing itſelf an intrinſic value, may be employed in all caſes as the medium of exchange; a regulation without which commerce, reſtrained to the mere operations of barter, cannot acquire the neceſſary activity.

The growth of every year preſents us with a ſupererogatory value, which is deſtined neither to remunerate the labour of which this growth is the fruit, nor to ſupply the ſtock which is to ſecure an equal and more abun-

dant growth in time to come. The poſſeſſor of this ſupererogatory value does not owe it immediately to his labour, and poſſeſſes it independently of the daily and indiſpenſible uſe of his faculties for the ſupply of his wants. This ſupererogatory growth is therefore the ſtock to which the ſovereign authority may have recourſe without injuring the rights of any, to ſupply the expences which are requiſite for the ſecurity of the ſtate, its intrific tranquillity, the preſervation of the rights of all the exerciſe of the authorities inſtituted for the eſtabliſhment or adminiſtration of law, in fine of the maintenance through all its branches of the public proſperity. There are certain operations, eſtabliſhments, and inſtitutions, beneficial to the community at large, which it is the office of the community to introduce, direct, and ſuperintend, and which are calculated to ſupply the defects of perſonal inclination, and to parry the ſtruggle of oppoſite intereſts, whether for the improvement of agriculture, induſtry, and commerce, or to prevent or diminiſh the evils entailed on our nature, or thoſe which accident is continually accumulating upon us.

Till the commencement of the epoch we are now conſidering, and even for ſome time after, theſe objects had been abandoned to chance, to the rapacity of governments, to the artifices of pretenders, or to the prejudices and partial intereſts of the powerful claſſes of ſociety; but a diſciple of Deſcartes, the illuſtrious and unfortunate John de Witt, perceived how neceſſary it

was that political economy, like every other ſcience, ſhould be governed by the principles of philoſophy and ſubjected to the rules of a rigid calculation.

It made however little progreſs, till the peace of Utrecht promiſed to Europe a durable tranquillity. From this period, neglected as it had hitherto been, it became a ſubject of almoſt general attention; and by Stuart, Smith, and particularly by the French economiſts, it was ſuddenly elevated, at leaſt as to preciſion and purity of principles, to a degree of perfection, not to have been expected after the long and total indifference which had prevailed upon the ſubject.

The cauſe however of ſo unparalleled a progreſs is chiefly to be found in the advancement of that branch of philoſophy comprehended in the term metaphyſics, taking the word in its moſt extenſive ſignification.

Deſcartes had reſtored this branch of philoſophy to the dominion of reaſon. He perceived the propriety of deducing it from thoſe ſimple and evident truths which are revealed to us by an inveſtigation of the operations of the mind. But ſcarcely had he diſcovered this principle than his eager imagination led him to depart from it, and philoſophy appeared for a time to have reſumed its independence only to become the prey of new errors. At length Locke made himſelf maſter of the proper clew. He ſhewed that a preciſe and accurate analyſis of ideas, reducing them to ideas earlier in their origin or more ſimple in their ſtructure, was the only means

to avoid the being loſt in a chaos of notions incomplete, incoherent, and undetermined, diſorderly becauſe ſuggeſted by accident, and afterwards entertained without reflecting on their nature.

He proved by this analyſis, that the whole circle of our ideas reſults merely from the operations of our intellect upon the ſenſations we have received, or more accurately ſpeaking, are compounded of ſenſations offering themſelves ſimultaneouſly to the memory, and after ſuch a manner, that the attention is fixed and the perception bounded to a particular branch or view of the ſenſations themſelves.

He ſhewed that by taking one ſingle word to repreſent one ſingle idea, properly analiſed and defined, we are enabled to recal conſtantly the ſame idea, that is, the ſame ſimultaneous reſult of certain ſimple ideas, and of conſequence can introduce this idea into a train of reaſoning without riſk of miſleading ourſelves.

On the contrary, if our words do not repreſent fixed and definite ideas, they will at different times ſuggeſt different ideas to the mind and become the moſt fruitful ſource of error.

In fine, Locke was the firſt who ventured to preſcribe the limits of the human underſtanding, or rather to determine the nature of the truths it can aſcertain and the objects it can embrace.

It was not long before this method was adopted by philoſophers in general, in treating of morals and poli-

tics, by which a degree of certainty was given to thoſe ſciences little inferior to that which obtained in the natural ſciences admitting only of ſuch concluſions as could be proved, ſeparating theſe from doubtful notions, and content to remain ignorant of whatever is out of the reach of human comprehenſion.

In the ſame manner, by analyſing the faculty of experiencing pain and pleaſure, men arrived at the origin of their notions of morality, and the foundation of thoſe general principles which form the neceſſary and immutable laws of juſtice; and conſequently diſcovered the proper motives of conforming their conduct to thoſe laws, which, being deduced from the nature of our feeling, may not improperly be called our moral conſtitution.

The ſame ſyſtem became, in a manner, a general inſtrument of acquiring knowledge. It was employed to aſcertain the truths of natural philoſophy, to try the facts of hiſtory, and to give laws to taſte. In a word, the proceſs of the human mind in every ſpecies of enquiry was regulated by this principle; and it is this lateſt effort of ſcience which has placed an everlaſting barrier between the human race and the old miſtakes of its infancy, that will for ever preſerve us from a relapſe into former ignorance, ſince it has prepared the means of undermining not only our preſent errors, but all thoſe by which they may be replaced, and which will ſucceed each other only to poſſeſs a feeble and temporary influence.

In Germany, however, a man of a vaſt and profound genius laid the foundations of a new theory. His bold and ardent mind diſdained to reſt on the ſuppoſitions of a modeſt philoſophy, which left in doubt thoſe great queſtions of ſpiritual exiſtence, the immortality of the ſoul, the free will of man and of God, and the exiſtence of vice and miſery in a world framed by a being, whoſe infinite wiſdom and goodneſs might be ſuppoſed to baniſh them from his creation. Leibnitz cut the knot which a timid ſyſtem had in vain attempted to unlooſe. He ſuppoſed the univerſe to be compoſed of atoms, which were ſimple, eternal, and equal in their nature. He contended that the relative ſituation of each of theſe atoms, with reſpect to every other, occaſioned the qualities diſtinguiſhing it from all others; the human ſoul, and the minuteſt particle of a maſs of ſtone, being each of them equally one of theſe atoms, differing only in conſequence of the reſpective places they occupy in the order of the univerſe.

He maintained that, of all the poſſible combinations which could be formed of theſe atoms, an infinitely wiſe being had preferred, and could not but prefer, the moſt perfect; and that if, in that which exiſts, we are afflicted with the preſence of vice and miſery, ſtill there is no other poſſible combination that would not be productive of greater evils.

Such was the nature of this theory, which, ſupported by the countrymen of Leibnitz, retarded in that

part of the world the progreſs of philoſophy. Meanwhile there ſtarted up in England an entire ſect, who embraced with zeal, and defended with eloquence, the ſcheme of optimiſm: but, leſs acute and profound than Leibnitz, who founded his ſyſtem upon the ſuppoſition of its being impoſſible, from his very nature, that an allwiſe being ſhould plan any other univerſe than that which was beſt, they endeavoured to diſcover in the terraqueous part of the world the proofs of this perfection, and loſing thereby the advantages which attach to this ſyſtem conſidered generally and in the abſtract, they frequently fell into abſurd and ridiculous reaſonings.

Meanwhile, in Scotland, other philoſophers, not perceiving that the analyſis of the developement of our actual faculties led to a principle which gave to the morality of our actions a baſis ſufficiently ſolid and pure, attributed to the human ſoul a new faculty, diſtinct from thoſe of ſenſation and reaſon, tho' at the ſame time combining itſelf with them; of the exiſtence of which they could advance no other proof, than that it was impoſſible to form a conſiſtent theory without it. In the hiſtory of theſe opinions it will be ſeen, that, while they have proved injurious to the progreſs of philoſophy itſelf, they have tended to give a more rapid and extenſive ſpread to ideas truly ſcientific, connected with philoſophy.

Hitherto we have exhibited the ſtate of philoſophy only among men by whom it has in a manner been ſtudi-

ed, inveſtigated, and perfected. It remains to mark its influence on the general opinion, and to ſhow, that, while it arrived at the certain and infallible means of diſcovering and recogniſing truth, reaſon at the ſame time detected the deluſions into which it had ſo often been led by a reſpect for authority or a miſguided imagination, and undermined thoſe prejudices in the maſs of individuals which had ſo long been the ſcourge, at once corrupting and inflicting calamity upon the human ſpecies.

The period at length arrived when men no longer feared openly to avow the right, ſo long withheld, and even unknown, of ſubjecting every opinion to the teſt of reaſon, or, in other words, of employing, in their ſearch after truth, the only means they poſſeſs for its diſcovery. Every man learned, with a degree of pride and exultation, that nature had not condemned him to ſee with the eyes and to conform his judgment to the caprice of another. The ſuperſtitions of antiquity accordingly diſappeared; and the debaſement of reaſon to the ſhrine of ſupernatural faith, was as rarely to be found in ſociety as in the circles of metaphyſics and philoſophy.

A claſs of men ſpeedily made their appearance in Europe, whoſe object was leſs to diſcover and inveſtigate truth, than to diſſeminate it; who, purſuing prejudice through all the haunts and aſylums in which the clergy, the ſchools, governments, and privileged corporations had placed and protected it, made it their glory rather to eradicate popular errors, than add to the ſtores of hu-

man knowledge; thus aiding indirectly the progreſs of mankind, but in a way neither leſs arduous, nor leſs beneficial.

In England, Collins and Bolingbroke, and in France, Bayle, Fontenelle, Monteſquieu, and the reſpective diſciples of theſe celebrated men, combated on the ſide of truth with all the weapons that learning, wit and genius were able to furniſh; aſſuming every ſhape, employing every tone, from the ſublime and pathetic to pleaſantry and ſatire, from the moſt laboured inveſtigation to an intereſting romance or a fugitive eſſay: accommodating truth to thoſe eyes that were too weak to bear its effulgence; artfully careſſing prejudice, the more eaſily to ſtrangle it; never aiming a direct blow at errors, never attacking more than one at a time, nor even that one in all its fortreſſes; ſometimes ſoothing the enemies of reaſon, by pretending to require in religion but a partial toleration, in politics but a limited freedom; ſiding with deſpotiſm, when their hoſtilities were directed againſt the prieſthood, and with prieſts when their object was to unmaſk the deſpot; ſapping the principle of both theſe peſts of human happineſs, ſtriking at the root of both theſe baneful trees, while apparently wiſhing for the reform only of glaring abuſes and ſeemingly confining themſelves to lopping off the exuberant branches; ſometimes repreſenting to the partiſans of liberty, that ſuperſtition, which covers deſpotiſm as with a coat of mail, is the firſt victim which ought to be ſacrificed, the firſt chain that ought to be broken; and ſometimes

denouncing it to tyrants as the true enemy of their power, and alarming them with recitals of its hypocritical conſpiracies and its ſanguinary vengeance. Theſe writers, meanwhile, were uniform in their vindication of freedom of thinking and freedom of writing, as privileges upon which depended the ſalvation of mankind. They declaimed, without ceſſation or wearineſs, againſt the crimes both of fanatics and tyrants, expoſing every feature of ſeverity, of cruelty, of oppreſſion, whether in religion, in adminiſtration, in manners, or in laws; commanding kings, ſoldiers, magiſtrates and prieſts, in the name of truth and of nature, to reſpect the blood of mankind; calling upon them, with energy, to anſwer for the lives ſtill profuſely ſacrificed in the field of battle or by the infliction of puniſhments, or elſe to correct this inhuman policy, this murderous inſenſibility; and laſtly, in every place, and upon every occaſion, rallying the friends of mankind with the cry of *reaſon*, *toleration*, *and humanity*.

Such was this new philoſophy. Accordingly to thoſe numerous claſſes that exiſt by prejudice, that live upon error, and that, but for the credulity of the people, would be powerleſs and extinct, it became a common object of deteſtation. It was every where received, and every where perſecuted, having kings, prieſts, nobles and magiſtrates among the number of its friends as well as of its enemies. Its leaders, however, had almoſt always the art to elude the purſuits of vengeance,

while they expoſed themſelves to hatred; and to ſcreen themſelves from perſecution, while at the ſame time they ſufficiently diſcovered themſelves not to loſe the laurels of their glory.

It frequently happened that a government rewarded them with one hand, and with the other paid their enemies for calumniating them; proſcribed them, yet was proud that fortune had honoured its dominions with their birth; puniſhed their opinions, and at the ſame time would have been aſhamed not to be ſuppoſed a convert thereto.

Theſe opinions were ſhortly embraced by every enlightened mind. By ſome they were openly avowed, by others concealed under an hypocriſy more or leſs apparent, according to the timidity or firmneſs of their characters, and accordingly as they were influenced by the contending intereſts of their profeſſion or their vanity. At length the pride of ranging on the ſide of erudition became predominant, and ſentiments were profeſſed with the ſlighteſt caution, which, in the ages that preceded, had been concealed by the moſt profound diſſimulation.

Look to the different countries of Europe into which, from the prevalence of the French language, become almoſt univerſal, it was impoſſible for the inquiſitorial ſpirit of governments and prieſts to prevent this philoſophy from penetrating, and we ſhall ſee how rapid was its progreſs. Meanwhile we cannot overlook how

artfully tyranny and ſuperſtition employed againſt it all the arguments invented to prove the weakneſs and fallibility of human judgment, all the motives which the knowledge of man had been able to ſuggeſt for miſtruſting his ſenſes, for doubting and ſcrutinizing his reaſon; thus converting ſcepticiſm itſelf into an inſtrument by which to aid the cauſe of credulity.

This admirable ſyſtem, ſo ſimple in its principles, which conſiders an unreſtricted freedom as the ſureſt encouragement to commerce and induſtry, which would free the people from the deſtructive peſtilence, the humiliating yoke of thoſe taxes apportioned with ſo great inequality, levied with ſo improvident an expence, and often attended with circumſtances of ſuch attrocious barbarity, by ſubſtituting in their room a mode of contribution at once equal and juſt, and of which the burthen would ſcarcely be felt; this theory, which connects the power and wealth of a ſtate with the happineſs of individuals and a reſpect for their rights, which unites by the bond of a common felicity the different claſſes into which ſocieties naturally divide themſelves; this benevolent idea of a fraternity of the whole human race, of which no national intereſt ſhall ever more intervene to diſturb the harmony; theſe principles, ſo attractive from the generous ſpirit that pervades them, as well as from their ſimplicity and comprehenſion, were propagated with enthuſiaſm by the French economiſts.

The ſucceſs of theſe writers was leſs rapid and leſs general than that of the philoſophers; they had to combat prejudices more refined, errors more ſubtle. Frequently they were obliged to enlighten before they could undeceive, and to inſtruct good ſenſe before they could venture to appeal to it as their judge.

If, however, to the whole of their doctrine they gained but a ſmall number of converts; if the general nature and inflexibility of their principles were diſcouraging to the minds of many; if they injured their cauſe by affecting an obſcure and dogmatical ſtyle, by too much poſtponing the intereſts of political freedom to the freedom of commerce, and by inſiſting too magiſterially upon certain branches of their ſyſtem, which they had not ſufficiently inveſtigated; they nevertheleſs ſucceeded in rendering odious and contemptible that daſtardly, that baſe and corrupt policy which places the proſperity of a nation in the ſubjection and impoveriſhment of its neighbours, in the narrow views of a code of prohibitions, and in the petty calculations of a tyrannical revenue.

But the new truths with which genius had enriched philoſophy and the ſcience of political economy, adopted in a greater or leſs degree by men of enlightened underſtandings, extended ſtill farther their ſalutary influence.

The art of printing had been applied to ſo many ſubjects, books had ſo rapidly increaſed, they were ſo admirably adapted to every taſte, every degree of information, and

every ſituation of life, they afforded ſo eaſy and frequently ſo delightful an inſtruction, they had opened ſo many doors to truth, which it was impoſſible ever to cloſe again, that there was no longer a claſs or profeſſion of mankind from whom the light of knowledge could abſolutely be excluded. Accordingly, though there ſtill remained a multitude of individuals condemned to a forced or voluntary ignorance, yet was the barrier between the enlightened and unenlightened portion of mankind nearly effaced, and an inſenſible gradation occupied the ſpace which ſeparates the two extremes of genius and ſtupidity.

Thus there prevailed a general knowledge of the natural rights of man; the opinion even that theſe rights are inalienable and impreſcriptible; a decided partiality for freedom of thinking and writing; for the enfranchiſement of induſtry and commerce; for the melioration of the condition of the people; for the repeal of penal ſtatutes againſt religious nonconformiſts; for the abolition of torture and barbarous puniſhments; the deſire of a milder ſyſtem of criminal legiſlation; of a juriſprudence that ſhould give to innocence a complete ſecurity; of a civil code more ſimple, as well as more conformable to reaſon and juſtice; indifference as to ſyſtems of religion, conſidered at length as the offspring of ſuperſtition, or ranked in the number of political inventions; hatred of hypocriſy and fanaticiſm; contempt for prejudices; and laſtly, a zeal for the propagation of truth.

Theſe principles, paſſing by degrees from the writings of philoſophers into every claſs of ſociety whoſe inſtruction was not confined to the catechiſm and the ſcriptures, became the common creed, the ſymbol and type of all men who were not idiots on the one hand, or, on the other, aſſertors of the policy of Machiaveliſm. In ſome countries theſe ſentiments formed ſo nearly the general opinion, that the maſs even of the people ſeemed ready to obey their dictates and act from their impulſe.

The love of mankind, that is to ſay, that active compaſſion which intereſts itſelf in all the afflictions of the human race, and regards with horror whatever, in public inſtitutions, in the acts of government, or the purſuits of individuals, adds to the inevitable misfortunes of nature, was the neceſſary reſult of theſe principles. It breathed in every work, it prevailed in every converſation, and its benign effects were already viſible even in the laws and adminiſtration of countries ſubject to deſpotiſm.

The philoſophers of different nations embracing, in their meditations, the entire intereſts of man, without diſtinction of country, of colour, or of ſect, formed, notwithſtanding the difference of their ſpeculative opinions, a firm and united phalanx againſt every deſcription of error, every ſpecies of tyranny. Animated by the ſentiment of univerſal philanthropy, they declaimed equally againſt injuſtice, whether exiſting in a foreign country, or exerciſed by their own country againſt a

foreign nation. They impeached in Europe the avidity which ſtained the ſhores of America, Africa, and Aſia with cruelty and crimes. The philoſophers of France and England gloried in aſſuming the appellation, and fulfilling the duties, of *friends* to thoſe very negroes whom their ignorant oppreſſors diſdained to rank in the claſs of men. The French writers beſtowed the tribute of their praiſe on the toleration granted in Ruſſia and Sweden, while Beccaria refuted in Italy the barbarous maxims of Gallic juriſprudence. The French alſo endeavoured to open the eyes of England reſpecting her commercial prejudices, and her ſuperſtitious reverence for the errors of her conſtitution; while the virtuous Howard remonſtrated at the ſame time with the French upon the cool barbarity which ſacrificed ſo many human victims in their priſons and hoſpitals.

Neither the violence nor the corrupt arts of government, neither the intolerance of prieſts, nor even the prejudices of the people themſelves, poſſeſſed any longer the fatal power of ſuppreſſing the voice of truth; and nothing remained to ſcreen the enemies of reaſon, or the oppreſſors of liberty, from the ſentence which was about to be pronounced upon them by the unanimous ſuffrage of Europe.

While the fabric of prejudice was thus tottering to its foundations, a fatal blow was given to it by a doctrine, of which Turgot, Price, and Prieſtley were the firſt and moſt illuſtrious advocates; it was the doctrine of

the infinite perfectibility of the human mind. The conſideration of this opinion will fall under the tenth diviſion of our work, where it will be developed with ſufficient minuteneſs. But we ſhall embrace this opportunity of expoſing the origin and progreſs of a falſe ſyſtem of philoſophy, to the overthrow of which the doctrine of the perfectibility of man is become ſo neceſſary.

The ſophiſtical doctrine to which I allude, derived its origin from the pride of ſome men, and the ſelfiſhneſs of others. Its real, though concealed object, was to give duration to ignorance, and to prolong the reign of prejudice. The adherents of this doctrine, who have been numerous, ſometimes attempted to delude the reaſon by brilliant paradoxes, or to ſeduce it by the ſpecious charms of an univerſal pyrrhoniſm. Sometimes they aſſumed the boldneſs peremptorily to declare, that the advancement of knowledge threatened the moſt fatal conſequences to human happineſs and liberty; at other times they declaimed, with pompous enthuſiaſm, in favour of an imaginary wiſdom and ſublimity, that diſdained the cold progreſs of analyſis, and the tardy mechanical path of experience. Upon one occaſion, they were accuſtomed to ſpeak of philoſophy and the abſtruſe ſciences as theories too ſubtle for the inveſtigation of the human underſtanding, urged as we are by daily wants, and ſubjected to the moſt ſudden viciſſitudes; at another, they treated them as a maſs of blind and idle conjectures, the falſe eſtimation of which was ſure to

diſappear from the mind of a man habituated to life and experience. Inceſſantly did they lament the decay and decrepitude of knowledge, in the midſt of its moſt brilliant progreſs; the rapid degradation of the human ſpecies, at the moment that men were ready to aſſert their rights and truſt to their own underſtandings; an approaching æra of barbariſm, darkneſs and ſlavery, when evidence was ſo perpetually accumulating, that the revival of ſuch an æra was no longer to be feared. They ſeemed humbled by the advances of their ſpecies, either becauſe they could not boaſt of having contributed to them, or becauſe they ſaw themſelves menaced with a ſpeedy termination of their influence or importance. In the meanwhile, a certain number of intellectual mountebanks, more ſkilful than thoſe who deſperately endeavoured to prop the edifice of declining ſuperſtition, attempted, out of the wreck of ſuperſtition, to erect a new religious creed which ſhould no longer demand of our reaſon any more than a ſort of formal ſubmiſſion, and which indulged us with a perfect liberty of conſcience, provided we would admit ſome ſlight fragment of incomprehenſibility into our ſyſtem. A ſecond claſs of theſe mountebanks aſſayed to revive, by means of ſecret aſſociations, the forgotten myſteries of a ſort of oriental theurgy. The errors of the people they left undiſturbed: upon their own diſciples they entailed new dogmas and new terrors, and ventured to hope, by a proceſs of cunning, to reſtore the ancient tyranny of

the ſacerdotal princes of India and Egypt. In the mean time, philoſophy, leaning upon the pillar which ſcience had prepared, ſmiled at their efforts, and ſaw one attempt vaniſh after another, as the waves retire from the foot of an immoveable rock.

By comparing the diſpoſition of the public mind, which I have already ſketched, with the prevailing ſyſtems of government, we ſhall perceive, without difficulty, that an important revolution was inevitable, and that there were two ways only in which it could take place: either the people themſelves would eſtabliſh a ſyſtem of policy upon thoſe principles of nature and reaſon, which philoſophy had rendered ſo dear to their hearts; or government might haſten to ſuperſede this event, by reforming its vices, and governing its conduct by the public opinion. One of theſe revolutions would be more ſpeedy, more radical, but alſo more tempeſtuous; the other leſs rapid, leſs complete, but more tranquil; in the one, liberty and happineſs would be purchaſed at the expence of tranſient evils; in the other, theſe evils would be avoided; but a part of the enjoyments neceſſary to a ſtate of perfect freedom, would be retarded in its progreſs, perhaps, for a conſiderable period, though it would be impoſſible in the end that it ſhould not arrive.

The corruption and ignorance of the rulers of nations have preferred, it ſeems, the former of theſe modes; and the ſudden triumph of reaſon and liberty has avenged the human race.

The ſimple dictates of good ſenſe had taught the inhabitants of the Britiſh colonies, that men born on the American ſide of the Atlantic ocean had received from nature the ſame rights as others born under the meridian of Greenwich, and that a difference of ſixty-ſix degrees of longitude could have no power of changing them. They underſtood, more perfectly perhaps than Europeans, what were the rights common to all the individuals of the human race; and among theſe they included the right of not paying any tax to which they had not conſented. But the Britiſh Government, pretending to believe that God had created America, as well as Aſia, for the gratification and good pleaſure of the inhabitants of London, reſolved to hold in bondage a ſubject nation, ſituated acroſs the ſeas at the diſtance of three thouſand miles, intending to make her the inſtrument in due time of enſlaving the mother country itſelf. Accordingly, it commanded the ſervile repreſentatives of the people of England to violate the rights of America, by ſubjecting her to compulſory taxation. This injuſtice, ſhe conceived, authoriſed her to diſſolve every tie of connection, and ſhe declared her independence.

Then was obſerved, for the firſt time, the example of a great people throwing off at once every ſpecies of chains, and peaceably framing for itſelf the form of government and the laws which it judged would be moſt conducive to its happineſs; and as, from its geographical poſition, and its former political ſtate, it was obliged to become a

federal nation, thirteen republican conſtitutions were ſeen to grow up in its boſom, having for their baſis a ſolemn recognition of the natural rights of man, and for their firſt object the preſervation of thoſe rights through every department of the union.

If we examine the nature of theſe conſtitutions, we ſhall diſcover in what reſpect they were indebted to the progreſs of the political ſciences, and what was the portion of error, reſulting from the prejudices of education which formed its way into them: why, for inſtance, the ſimplicity of theſe conſtitutions is disfigured by the ſyſtem of a balance of powers; and why an identity of intereſts, rather than an equality of rights, is adopted as their principle. It is manifeſt that this principle of identity of intereſts, when made the rule of political rights is not only a violation of ſuch rights, with reſpect to thoſe who are denied an equal ſhare in the exerciſe of them, but that it ceaſes to exiſt the very inſtant it becomes an actual inequality. We inſiſt the rather upon this, as it is the only dangerous error remaining, the only error reſpecting which men of enlightened minds want ſtill to be undeceived. At the ſame time, however, we ſee realized in theſe republics an idea, at that time almoſt new even in theory; I mean the neceſſity of eſtabliſhing by law a regular and peaceable mode of reforming the conſtitutions themſelves, and of placing this buſineſs in other hands than thoſe entruſted with the legiſlative power.

Meanwhile, in conſequence of America declaring herſelf independent of the Britiſh government, a war enſued between the two enlightened nations, in which one contended for the natural rights of mankind, the other for that impious doctrine which ſubjects theſe rights to preſcription, to political intereſts, and written conventions. The great cauſe at iſſue was tried, during this war, in the tribunal of opinion, and, as it were, before the aſſembled nations of mankind. The rights of men were freely inveſtigated, and ſtrenuouſly ſupported in writings which circulated from the banks of the Neva to thoſe of the Guadalquivir. Theſe diſcuſſions penetrated into the moſt enſlaved countries, into the moſt diſtant and retired hamlets. The ſimple inhabitants were aſtoniſhed to hear of rights belonging to them: they enquired into the nature and importance of thoſe rights: they found that other men were in arms, to re-conquer or to defend them.

In this ſtate of things it could not be long before the tranſatlantic revolution muſt find its imitators in the European quarter of the world. And if there exiſted a country in which, from attachment to their cauſe, the writings and principles of the Americans were more widely diſſeminated than in any other part of Europe; a country at once the moſt enlightened, and the leaſt free; in which philoſophers had ſoared to the ſublimeſt pitch of intellectual attainment, and the government was ſunk in the deepeſt and moſt intolerable igno-

rance; where the ſpirit of the laws was ſo far below the general ſpirit and illumination, that national pride and inveterate prejudice were alike aſhamed of vindicating the old inſtitutions: if, I ſay, there exiſted ſuch a country, were not the people of that country deſtined by the very nature of things, to give the firſt impulſe to this revolution, expected by the friends of humanity with ſuch eager impatience, ſuch ardent hope? Accordingly it was to commence with France.

The impolicy and unſkilfulneſs of the French government haſtened the event. It was guided by the hand of philoſophy, and the populor force deſtroyed the obſtacles that otherwiſe might have arreſted its progreſs.

It was more complete, more entire than that of America, and of conſequence was attended with greater convulſions in the interior of the nation, becauſe the Americans, ſatisfied with the code of civil and criminal legiſlation which they had derived from England, having no corrupt ſyſtem of finance to reform, no feodal tyrannies, no hereditary diſtinctions, no privileges of rich and powerful corporations, no ſyſtem of religious intolerance to deſtroy, had only to direct their attention to the eſtabliſhment of new powers to be ſubſtituted in the place of thoſe hitherto exerciſed over them by the Britiſh government. In theſe innovations there was nothing that extended to the maſs of the people, nothing that altered the ſubſiſting relations formed between indi-

viduals: whereas the French revolution, for reaſons exactly the reverſe, had to embrace the whole economy of ſociety, to change every ſocial relation, to penetrate to the ſmalleſt link of the political chain, even to thoſe individuals, who, living in peace upon their property, or by their induſtry, were equally unconnected with public commotions, whether by their opinions and their occupations, or by the intereſts of fortune, of ambition, or of glory.

The Americans, as they appeared only to combat againſt the tyrannical prejudices of the mother country, had for allies the rival powers of England; while other nations, jealous of the wealth, and diſguſted at the pride of that country, aided, by their ſecret aſpirations, the triumph of juſtice: thus all Europe leagued, as it were, againſt the oppreſſor. The French, on the contrary, attacked at once the deſpotiſm of kings, the political inequality of conſtitutions partially free, the pride and prerogatives of nobility, the domination, intolerance, and rapacity of prieſts, and the enormity of feodal claims, ſtill reſpected in almoſt every nation in Europe; and accordingly the powers we have mentioned, united in favour of tyranny; and there appeared on the ſide of the Gallic revolution the voice only of ſome enlightened ſages, and the timid wiſhes of certain oppreſſed nations: ſuccours, meanwhile, of which all the artifices of calumny have been employed to deprive it.

It would be eaſy to ſhow how much more pure, accurate, and profound, are the principles upon which the conſtitution and laws of France have been formed, than thoſe which directed the Americans, and how much more completely the authors have withdrawn themſelves from the influence of a variety of prejudices; that the great baſis of policy, the equality of rights, has never been ſuperſeded by that fictitious identity of intereſts, which has ſo often been made its feeble and hypocritical ſubſtitute; that the limits preſcribed to political power have been put in the place of that ſpecious balance which has ſo long been admired; that we were the firſt to dare, in a great nation neceſſarily diſperſed, and which cannot perſonally be aſſembled but in broken and numerous parcels, to maintain in the people their rights of ſovereignty, the right of obeying no laws but thoſe which, though originating in a repreſentative authority, ſhall have received their laſt ſanction from the nation itſelf, laws which, if they be found injurious to its rights or intereſts, the nation is always organized to reform by a regular act of its ſovereign will.

From the time when the genius of Deſcartes impreſſed on the minds of men that general impulſe, which is the firſt principle of a revolution in the deſtiny of the human ſpecies, to the happy period of entire ſocial liberty, in which man has not been able to regain his natural independence till after having paſſed through a long ſeries of ages of misfortune and ſlavery, the view of

the progreſs of mathematical and phyſical ſcience preſents to us an immenſe horizon, of which it is neceſſary to diſtribute and aſſort the ſeveral parts, whether we may be deſirous of fully comprehending the whole, or of obſerving their mutual relations.

The application of algebra to geometry not only became the fruitful ſource of diſcoveries in both ſciences, but they prove, from this ſtriking example, how much the method of computation of magnitudes in general may be extended to all queſtions, the object of which conſiſts in meaſure and extenſion. Deſcartes firſt announced the truth, that they would be employed with equal ſucceſs hereafter upon all objects ſuſceptible of preciſe valuation; and this great diſcovery, by ſhewing for the firſt time the ultimate purpoſe of theſe ſciences, that is to ſay, the ſtrict calculation of every ſpecies of truth, afforded the hope of attaining this point, at the ſame time that it exhibited the means.

This diſcovery was ſoon ſucceeded by that of a new method of computing, which teaches us to find the ratios of the ſucceſſive increments or decrements of a variable quantity, or to deduce the quantity itſelf when this ratio is given; whether the increments be ſuppoſed of finite magnitude, or their ratio be ſought for the inſtant only of their vaniſhment; a method which, being extended to all the combinations of variable magnitudes, and to all the hypotheſes of their variations, leads to a determination, with regard to all things preciſely menſu-

rable, of the ratios of their elements, or of the things themſelves, from the knowledge of thoſe proportions which they mutually have, provided the ratios of their elements only be given.

We are indebted to Newton and Leibnitz for the invention of theſe methods; but the labours of the geometers of the preceding age prepared the way for this diſcovery. The progreſs of theſe ſciences, which has been uninterrupted for more than a century, is the work, and eſtabliſhes the reputation, of a number of men of genius. They preſent to the eyes of the philoſopher, who is able to obſerve them, even though he may not follow their ſteps, a ſtriking monument of the force of the human mind.

When we explain the formation and principles of algebraic language, which alone is accurate and truly analytic; the nature of the technical proceſſes of this ſcience; and the compariſon of theſe proceſſes with the natural operations of the human mind, we may prove that, if this method be not itſelf a peculiar inſtrument in the ſcience of quantity, it certainly includes the principles of an univerſal inſtrument applicable to all poſſible combinations of ideas.

Rational mechanics ſoon became a vaſt and profound ſcience. The true laws of the colliſion of bodies, reſpecting which Deſcartes was deceived, were at length known.

Huyghens diſcovered the laws of circular motions; and at the ſame time he gives a method of determining the radius of curvature for every point of a given curve. By uniting both theories, Newton invented the theory of curve-lined motions, and applied it to thoſe laws according to which Kepler had diſcovered that the planets deſcribe their elliptical orbits.

A planet, ſuppoſed to be projected into ſpace at a given inſtant, with a given velocity and direction, will deſcribe round the ſun an ellipſis, by virtue of a force directed to that ſtar, and proportional to the inverſe ratio of the ſquares of the diſtances. The ſame force retains the ſatellites in their orbits round the primary planets: it pervades the whole ſyſtem of heavenly bodies, and acts reciprocally between all their component parts.

The regularity of the planetary ellipſes is diſturbed, and the calculation preciſely explains the very ſlighteſt degrees of theſe perturbations. It is equally applicable to the comets, and determines their orbits with ſuch preciſion, as to foretel their return. The peculiar motion obſerved in the axes of rotation of the earth and the moon, affords additional proof of the exiſtence of this univerſal force. Laſtly, it is the cauſe of the weight of terreſtrial bodies, in which effect it appears to be invariable, becauſe we have no means of obſerving its action at diſtances from the centre, which are ſufficiently remote from each other.

Thus we ſee man has at laſt become acquainted, for the firſt time, with one of the phyſical laws of the univerſe. Hitherto it ſtands unparalleled, as does the glory of him who diſcovered it.

An hundred years of labour and inveſtigation have confirmed this law, to which all the celeſtial phenomena are ſubjected, with an accuracy which may be ſaid to be miraculous. Every time in which an apparent deviation has preſented itſelf, the tranſient uncertainty has ſoon become a ſubject of new triumph to the ſcience.

The philoſopher is, in almoſt every inſtance, compelled to have recourſe to the works of a man of genius for the ſecret clue which led him to diſcovery; but here intereſt, inſpired by admiration, has diſcovered and preſerved anecdotes of the greateſt value, ſince they permit us to follow Newton ſtep by ſtep. They ſerve to ſhow how much the happy combinations of external events, or chance, unite with the efforts of genius in producing a great diſcovery, and how eaſily combinations of a leſs favourable nature might have retarded them, or reſerved them for other hands.

But Newton did more, perhaps, in favour of the progreſs of the human mind, than merely diſcovering this general law of nature; he taught men to admit in natural philoſophy no other theories but ſuch as are preciſe, and ſuſceptible of calculation; which give an account not only of the exiſtence of a phenomenon, but its quantity and extent. Nevertheleſs he was accuſed

of reviving the occult qualities of the ancients, becauſe he had confined himſelf to refer the general cauſe of celeſtial appearances to a ſimple fact, of which obſervation proved the inconteſtable reality; and this accuſation is itſelf a proof how much the methods of the ſciences ſtill require to be enlightened by philoſophy.

A great number of problems in ſtatics and dynamics had been ſucceſſively propoſed and reſolved, when Alembert diſcovered a general principle adequate to the determination of the motions of any number of points acted on by any forces, and connected by conditions. He ſoon extended the ſame principle to finite bodies of a determinate figure; to thoſe which, from elaſticity or flexibility, are capable of changing their figure, but according to certain laws and preſerving certain relations between their parts; and laſtly to fluids themſelves, whether they preſerve the ſame denſity, or exiſt in a ſtate of expanſibility. A new calculation was neceſſary to reſolve theſe laſt queſtions; the means did not eſcape him, and mechanics at preſent form a ſcience of pure calculation.

Theſe diſcoveries belong to the mathematical ſciences; but the nature of the law of univerſal gravitation, or of theſe principles of mechanics, and the conſequences which may thence be drawn and applied to the eternal order of the univerſe, belong to philoſophy. We learn that all bodies are ſubject to neceſſary laws, which tend of themſelves to produce or maintain an equilibri-

am, which cauſes or preſerves the regularity of their motions.

The knowledge of thoſe laws which govern the celeſtial phenomena, the diſcoveries of that mathematical analyſis which leads to the moſt preciſe methods of calculating the appearances, the very unexpected degree of perfection to which optical and goniometrical inſtruments have been brought, the preciſion of machines for meaſuring time, the more general taſte for the ſciences, which unites itſelf with the intereſt of governments, to multiply the number of aſtronomers and obſervations; all theſe cauſes unite to ſecure the progreſs of aſtronomy.

The heavens are enriched for the man of ſcience with new ſtars, and he applies his knowledge to determine and foretel with accuracy their poſitions and movements. Natural philoſophy, gradually delivered from the vague explanations of Deſcartes, in the ſame manner as it before was diſembarraſſed from the abſurdities of the ſchools, is now nothing more than the art of interrogating nature by experiment, for the purpoſe of afterwards deducing more general facts by computation.

The weight of the air is known and meaſured: it is known that the tranſmiſſion of light is not inſtantaneous; its velocity is determined, with the effects which muſt reſult from that velocity, as to the apparent poſition of the celeſtial bodies; and the decompoſition of the ſolar rays into others of different refrangibility and colour.

The rainbow is explained, and the methods of cauſing its colours to be produced or to diſappear are ſubjected to calculation. Electricity, formerly conſidered as the property of certain ſubſtances only, is now known to be one of the moſt general phenomena in the univerſe. The cauſe of thunder is no longer a ſecret; Franklin has taught the artiſt to change its courſe, and direct it at pleaſure. New inſtruments are employed to meaſure the variations of weight and humidity in the atmoſphere, and the temperature of all bodies. A new ſcience, under the name of meteorology, teaches us to know, and ſometimes to foretel, the atmoſpheric appearances of which it will hereafter diſcloſe to us the unknown laws.

While we preſent a ſketch of theſe diſcoveries, we may remark how much the methods which have directed philoſophers in their reſearches are ſimpliſied and brought to perfection; how greatly the art of making experiments, and of conſtructing inſtruments, has ſucceſſively become more accurate; ſo that philoſophy is not only enriched every day with new truths, but the truths already known have been more exactly aſcertained; ſo that not only an immenſe maſs of new facts have been obſerved and analyſed, but the whole has been ſubmitted in detail to methods of greater ſtrictneſs.

Natural philoſophy has been obliged to combat with the prejudices of the ſchools, and the attraction of general hypotheſes, ſo ſeducing to indolence. Other obſtacles retarded the progreſs of chemiſtry. It was imagi-

ned that this ſcience ought to afford the ſecret of making gold, and that of rendering man immortal.

The effect of great intereſts, is to render man ſuperſtitious. It was not ſuppoſed that ſuch promiſes, which flatter the two ſtrongeſt paſſions of vulgar minds, and beſides rouſe that of acquiring glory, could be accompliſhed by ordinary means; and every thing which credulity or folly could ever invent of extravagance, ſeemed to unite in the minds of chemiſts.

But theſe chimeras gradually gave place to the mechanical philoſophy of Deſcartes, which in its turn gave place to a chemiſtry truly experimental. The obſervation of thoſe facts which accompany the mutual compoſition and decompoſition of bodies, the reſearch into the laws of theſe operations, with the analyſis of ſubſtances into elements of greater ſimplicity, acquire a degree of preciſion and ſtrictneſs ever increaſing.

But to theſe advances of chemiſtry we muſt add others, which embrace the whole ſyſtem of the ſcience, and rather by extending the methods than immediately increaſing the maſs of truths, foretel and prepare a revolution of the happieſt kind. Such has been the diſcovery of new means of confining and examining thoſe elaſtic fluids, which formerly were ſuffered to eſcape; a diſcovery which, by permitting us to operate upon an entire claſs of new principles, and upon thoſe already known, reduced to a ſtate which eſcaped our reſearches, and by adding an element the more to almoſt every

combination, has changed, as it were, the whole ſyſtem of chemiſtry. Such has been the formation of a language, in which the names denoting ſubſtances ſometimes expreſs the reſemblance or differences of thoſe which have a common element, and ſometimes the claſs to which they belong. To theſe advantages we may add the uſe of a ſcientific method, wherein theſe ſubſtances are repreſented by characters analytically combined, and moreover capable of expreſſing the moſt common operations and the general laws of affinity. And, again, this ſcience is enriched by the uſe of all the means and all the inſtruments which philoſophers have applied to compute with the utmoſt rigor the reſults of experiment; and laſtly, by the application of the mathematics to the phenomena of chryſtalization, and to the laws according to which the elements of certain bodies effect in their combination regular and conſtant forms.

Men who long had poſſeſſed no other knowledge than that of explaining by ſuperſtitious or philoſophical reveries the formation of the earth, before they endeavoured to become acquainted with its parts, have at laſt perceived the neceſſity of ſtudying with the moſt ſcrupulous attention the ſurface of the ground, the internal parts of the earth into which neceſſity has urged men to penetrate, the ſubſtances there found, their fortuitous or regular diſtribution, and the diſpoſition of the maſſes they have formed by their union. They have learned to aſcertain the effects of the ſlow and long continued

action of the waters of the ſea, of rivers, and the effect of volcanic fires; to diſtinguiſh thoſe parts of the ſurface and exterior cruſt of the globe, of which the inequalities, diſpoſition, and frequently the materials themſelves, are the work of theſe agents; from the other portion of the ſurface, formed for the moſt part of heterogeneous ſubſtances, bearing the marks of more ancient revolutions by agents with which we are yet acquainted.

Minerals, vegetables, and animals are divided into various ſpecies, of which the individuals differ by inſenſible variations ſcarcely conſtant, or produced by cauſes purely local. Many of theſe ſpecies reſemble each other by a greater or leſs number of common qualities, which ſerve to eſtabliſh ſucceſſive diviſions regularly more and more extended. Naturaliſts have invented methods of claſſing the objects of ſcience from determinate characters eaſily aſcertained, the only means of avoiding confuſion in the midſt of this numberleſs multitude of individuals. Theſe methods are, indeed, a real language, wherein each object is denoted by ſome of its moſt conſtant qualities, which, when known, are applicable to the diſcovery of the name which the article may bear in common language. Theſe general languages, when well compoſed, likewiſe indicate, in each claſs of natural objects, the truly eſſential qualities which by their union cauſe a more or leſs perfect reſemblance in the reſt of their properties.

We have formerly ſeen the effects of that pride which magnifies in the eyes of men the objects of an excluſive ſtudy, and knowledge painfully acquired, which attaches to theſe methods an exaggerated degree of importance, and miſtakes for ſcience itſelf that which is nothing more than the dictionary and grammar of its real language. And ſo likewiſe, by a contrary exceſs, we have ſeen philoſophers falſely degrade theſe ſame methods, and confound them with arbitrary nomenclatures, as futile and laborious compilations.

The chemical analyſis of the ſubſtances in the three great kingdoms of nature; the deſcription of their external form; the expoſition of their phyſical qualities and uſual properties; the hiſtory of the developement of organized bodies, animals, or plants; their nutrition and reproduction; the details of their organization; the anatomy of their various parts; the functions of each; the hiſtory of the manners of animals and their induſtry to procure food, defence, and habitation, or to ſeize their prey, or eſcape from their enemies; the ſocieties of family or ſpecies which are formed amongſt them; that great maſs of truth to which we are led by meditating on the immenſe chain of organiſed beings; the relation which ſucceſſive years produce from brute matter at the moſt feeble degree of organization, from organiſed matter to that which affords the firſt indications of ſenſibility and ſpontaneous motion; and from this ſtation to that of man himſelf; the relation

of all theſe beings with him, whether relative to his wants, the analogies which bring him nearer to them, or the differences by which he is ſeparated: ſuch is the ſketch preſented to the mind by modern natural hiſtory.

The phyſical man is himſelf the object of a ſeparate ſcience, anatomy, which, in its general acceptation, includes phyſiology. This ſcience, which a ſuperſtitious reſpect for the dead had retardad, has taken advantage of the general diſappearance of prejudice, and has happily oppoſed the intereſt of the preſervation of man, which has ſecured it the patronage of men of eminence. Its progreſs has been ſuch, that it ſeems in ſome ſort to be at a ſtand, in the expectation of more perfect inſtruments and new methods. It is nearly reduced to ſeek in the comparative anatomy of the parts of animals and man, in the organs common to the different ſpecies, and the manner in which they exerciſe ſimilar functions, thoſe truths which the direct obſervation of the human frame appears to refuſe. Almoſt every thing which the eye of the obſerver, aſſiſted by the microſcope, has been able to diſcover, is already aſcertained. Anatomy appears to ſtand in need of experiments, ſo uſeful to the progreſs of other ſciences; but the nature of its object deprives it of this means, ſo evidently neceſſary to its perfection.

The circulation of the blood was long ſince known; but the diſpoſition of the veſſels which conveyed the

chyle to mix with it, and repair its loſſes; the exiſtence of a gaſtric fluid which diſpoſes the elements to the decompoſition neceſſary to ſeparate from organiſed matter, that portion which is proper to become aſſimilated with the living fluids; the changes undergone by the various parts and organs in the interval between conception and birth, and afterwards during the different ages of life; the diſtinction between the parts poſſeſſing ſenſibility and thoſe in which irritability only reſides, a property diſcovered by Haller, and common to almoſt every organic ſubſtance: theſe facts are the whole of what phyſiology has been enabled to diſcover, by indubitable obſervations, during this brilliant epoch; and theſe important truths may ſerve as an apology for the numerous explanations, mechanical, chemical, and organical, which have ſucceeded each other, and loaded this ſcience with hypotheſes deſtructive to its progreſs, and dangerous when uſed as the ground of medical practice. To the outline of the ſciences we may add that of the arts, which, being founded upon them, have advanced with greater certainty, and broken the ſhackles of cuſtom and common practice, which heretofore impeded their progreſs.

We may ſhew the influence which the progreſs of mechanics, of aſtronomy, of optics, and of the art of meaſuring time, has exerciſed on the art of conſtructing, moving, and directing veſſels at ſea. We may ſhew how greatly an increaſe of the number of obſer-

vers, and a greater degree of accuracy in the aſtronomical determinations of poſitions, and in topographical methods, have at laſt produced an acquaintance with the ſurface of the globe, of which ſo little was known at the end of the laſt century.

How greatly the mechanic arts, properly ſo called, have given perfection to the proceſſes of art in conſtructing inſtruments and machines in the practice of trade, and theſe laſt have no leſs added force to rational mechaniſm and philoſophy. Theſe arts are alſo greatly indebted to the employment of firſt movers already known, with leſs of expence and loſs, as well as to the invention of new principles of motion.

We have beheld architecture extend its reſearches into the ſcience of equilibriums and the theory of fluids, for the means of giving the moſt commodious and leaſt expenſive form to arches, without fear of altering their ſolidity; and to oppoſe againſt the effort of water a reſiſtance computed with greater certainty; to direct the courſe of that fluid, and to employ it in canals with greater ſkill and ſucceſs.

We have beheld the arts dependent on chymiſtry enriched with new proceſſes; the ancient methods have been ſimplified, and cleared from uſeleſs or noxious ſubſtances, and from abſurd or imperfect practices introduced from former rude trials; means have been invented to avert thoſe frequently terrible dangers to which workmen were expoſed. Thus it is that the application

of ſcience has ſecured to us more of riches and enjoyment, with much leſs of painful ſacrifice or of regret.

In the mean time, chemiſtry, botany, and natural hiſtory, have very much enlightened the economical arts, and the culture of vegetables deſtined to ſupply our wants; ſuch as the art of ſupporting, multiplying, and preſerving domeſtic animals; the bringing their races to perfection, and meliorating their products; the art of preparing and preſerving the productions of the earth, or thoſe articles which are of animal product.

Surgery and pharmacy have become almoſt new arts, from the period when anatomy and chemiſtry have offered them more enlightened and more certain direction.

The art of medicine, for in its practice it muſt be conſidered as an art, is by this means delivered at leaſt of its falſe theories, its pedantic jargon, its deſtructive courſe of practice, and the ſervile ſubmiſſion to the authority of men, or the doctrine of colleges; it is taught to depend only on experience. The means of this art have become multiplied, and their combination and application better known; and though it may be admitted that in ſome parts its progreſs is merely of a negative kind, that is to ſay, in the deſtruction of dangerous practices and hurtful prejudices, yet the new methods of ſtudying chemical medicine, and of combining obſer-

vations, give us reaſon to expect more real and certain advances.

We may endeavour more eſpecially to trace that practice of genius in the ſciences which at one time deſcends from an abſtract and profound theory to learned and delicate applications; at another, ſimplifying its means, and proportioning them to its wants, concludes by ſpreading its advantages through the moſt ordinary practices; and at others again being rouzed by the wants of this ſame courſe of art, it plunges into the moſt remote ſpeculations, in ſearch of reſources which the ordinary ſtate of our knowledge muſt have refuſed.

We may remark that thoſe declamations which are made againſt the utility of theories, even in the moſt ſimple arts, have never ſhewn any thing but the ignorance of the declaimers. We may prove that it is not to the profundity of theſe theories, but, on the contrary, to their imperfection, that we ought to attribute the inutility or unhappy effects of ſo many uſeleſs applications.

Theſe obſervations will lead us to one general truth, that in all the arts the reſults of theory are neceſſarily modified in practice; that certain ſources of inaccuracy exiſt, which are really inevitable, of which our aim ſhould be to render the effect inſenſible, without indulging the chimerical hope of removing them; that a great number of data relative to our wants, our means, our time, and our expences which are neceſſarily overlooked in the theory, muſt enter into the relative

problem of immediate and real practice; and that, laſtly by introducing theſe requiſites with that ſkill which truly conſtitutes the genius of the practical man, we may at the ſame time go beyond the narrow limits wherein prejudice againſt theory threatens to detain the arts, and prevent thoſe errors into which an improper uſe of theory might lead us.

Thoſe ſciences which are remote from each other, cannot be extended without bringing them nearer, and forming points of contact between them.

An expoſition of the progreſs of each ſcience is ſufficient to ſhew, that in ſeveral the intermediate application of numbers has been uſeful, as, in almoſt all, it has been employed to give a greater degree of preciſion to experiments and obſervations; and that the ſciences are indebted to mechanics which has ſupplied them with more perfect and more accurate inſtruments. How much have the diſcovery of microſcopes, and of meteorological inſtruments contributed to the perfection of natural hiſtory. How greatly is this ſcience indebted to chemiſtry, which, alone, has been ſufficient to lead to a more profound knowledge of the objects it conſiders, by diſplaying their moſt intimate nature, and moſt eſſential properties—by ſhewing their compoſition and elements; while natural hiſtory offers to chymiſtry ſo many operations to execute, ſuch a numerous ſet of combinations formed by nature, the true elements of which require to be ſeparated, and ſome-

times diſcovered, by an imitation of the natural proceſſes: and, laſtly, how great is the mutual aſſiſtance afforded to each other by chymiſtry and natural philoſophy; and how greatly have anatomy and natural hiſtory been already benefited by theſe ſciences.

But we have yet expoſed no more than a ſmall portion of the advantages which have been received, or may be expected, from theſe applications.

Many geometers have given us general methods of deducing, from obſervations of the empiric laws of phenomena, methods which extend to all the ſciences; becauſe they are in all caſes capable of affording us the knowledge of the law of the ſucceſſive values of the ſame quantity, for a ſeries of inſtants or poſitions; or that law according to which they are diſtributed, or which is followed by the various properties and values of a ſimilar quality among a given number of objects.

Applications have already proved, that the ſcience of combination may be ſucceſsfully employed to diſpoſe obſervations, in ſuch a manner, that their relations, reſults, and ſum may with more facility be ſeen.

The uſes of the calculation of probabilities foretel how much they may be applied to advance the progreſs of other ſciences; in one caſe, to determine the probability of extraordinary facts, and to ſhew whether they ought to be rejected, or whether, on the contrary, they ought to be verified; or in calculating the probability of the return of thoſe facts which often preſent

themſelves in the practice of the arts, and are not connected together in an order, yet conſidered as a general law. Such, for example, in medicine, is the ſalutary effect of certain remedies, and the ſucceſs of certain preſervatives. Theſe applications likewiſe ſhew us how great is the probability that a ſeries of phenomena ſhould reſult from the intention of a thinking being; whether this being depends on other co-exiſtent, or antecedent phenomena; and how much ought to be attributed to the neceſſary and unknown cauſe denominated chance, a word the ſenſe of which can only be known with preciſion by ſtudying this method of computing.

The ſciences have likewiſe taught us to aſcertain the ſeveral degrees of certainty to which we may hope to attain; the probability according to which we can adopt an opinion, and make it the baſis of our reaſonings, without injuring the rights of ſound argument, and the rules of our conduct—without deficiency in prudence, or offence to juſtice. They ſhew what are the advantages or diſadvantages of various forms of election, and modes of deciſion dependant on the plurality of voices; the different degrees of probability which may reſult from ſuch proceedings; the method which public intereſt requires to be followed, according to the nature of each queſtion; the means of obtaining it nearly with certainty, when the deciſion is not abſolutely neceſſary, or when the inconveniences of two concluſions being unequal, neither of them can become legitimate until

beneath this probability; or the aſſurance beforehand of moſt frequently obtaining this ſame probability, when, on the contrary, a deciſion is neceſſary to be made, and the moſt feeble preponderance of probability is ſufficient to produce a rule of practice.

Among the number of theſe applications we may likewiſe ſtate, an examination of the probability of facts for the uſe of ſuch as have not the power, or means, to ſupport their concluſions upon their own obſervations; a probability which reſults either from the authority of witneſſes, or the connection of thoſe facts with others immediately obſerved.

How greatly have inquiries into the duration of human life, and the influence in this reſpect of ſex, temperature, climate, profeſſion, government, and habitudes of life; on the mortality which reſults from different diſeaſes; the changes which population experiences; the extent of the action of different cauſes which produce theſe changes; the manner of its diſtribution, in each country, according to the age, ſex, and occupation:— how greatly uſeful have theſe reſearches been to the phyſical knowledge of man, to medicine, and to public economy.

How extenſively have computations of this nature been applied for the eſtabliſhment of annuities, tontines, accumulating funds, benefit ſocieties, and chambers of aſſurance of every kind.

Is not the application of numbers alſo neceſſary to that part of the public economy which includes the theory of public meaſures, of coin, of banks and financial operations, and laſtly, that of taxation, as eſtabliſhed by law, and its real diſtribution, which ſo frequently differs, in its effects on all the parts of the ſocial ſyſtem.

What a number of important queſtions in this ſame ſcience are there, which could not have been properly reſolved without the knowledge acquired in natural hiſtory, agriculture, and the philoſophy of vegetables, which influence the mechanical or chymical arts.

In a word, ſuch has been the general progreſs of the ſciences, that it may be ſaid there is not one which can be conſidered as to the whole extent of its principles and detail, without our being obliged to borrow the aſſiſtance of all the others.

In preſenting this ſketch both of the new facts which have enriched the ſciences reſpectively, and the advantages derived in each from the application of theories, or methods, which ſeem to belong more particularly to another department of knowledge, we may endeavour to aſcertain what is the nature and the limits of thoſe truths to which obſervation, experience, or meditation, may lead us in each ſcience; we may likewiſe inveſtigate what it is preciſely that conſtitutes that talent of invention which is the firſt faculty of the human mind, and is known by the name of genius; by what operations the underſtanding may attain the diſcoveries it

purſues, or ſometimes be led to others not ſought, or even poſſible to have been foretold; we may ſhew how far the methods which lead to diſcovery may be exhauſted, ſo that ſcience may, in a certain reſpect, be at a ſtand, till new methods are invented to afford an additional inſtrument to genius, or to facilitate the uſe of thoſe which cannot be employed without too great a conſumption of time and fatigue.

If we confine ourſelves to exhibit the advantages deduced from the ſciences in their immediate uſe or application to the arts, whether for the welfare of individuals or the proſperity of nations, we ſhall have ſhewn only a ſmall part of the beneſits they afford. The moſt important perhaps is, that prejudice has been deſtroyed, and the human underſtanding in ſome ſort rectified; after having been forced into a wrong direction by abſurd objects of belief, tranſmitted from generation to generation, taught at the misjudging period of infancy, and enforced with the terrors of ſuperſtition and the dread of tyranny.

All the errors in politics and in morals are founded upon philoſophical miſtakes, which, themſelves, are connected with phyſical errors. There does not exiſt any religious ſyſtem, or ſupernatural extravagance, which is not founded on an ignorance of the laws of nature. The inventors and defenders of theſe abſurdities could not foreſee the ſucceſſive progreſs of the human mind. Being perſuaded that the men of their time

knew every thing, they would ever know, and would always believe that in which they then had fixed their faith; they confidently built their reveries upon the general opinions of their own country and their own age.

The progreſs of natural knowledge is yet more deſtructive of theſe errors, becauſe it frequently deſtroys them without ſeeming to attack them, by attaching to thoſe who obſtinately defend them the degrading ridicule of ignorance.

At the ſame time, the juſt habit of reaſoning on the object of theſe ſciences, the preciſe ideas which their methods afford, and the means of aſcertaining or proving the truth, muſt naturally lead us to compare the ſentiment which forces us to adhere to opinions founded on theſe real motives of credibility, and that which attaches us to our habitual prejudices, or forces us to yield to authority. This compariſon is ſufficient to teach us to miſtruſt theſe laſt opinions, to ſhew that they were not really believed, even when that belief was the moſt earneſtly and the moſt ſincerely profeſſed. When this diſcovery is once made, their deſtruction becomes much more ſpeedy and certain.

Laſtly, this progreſs of the phyſical ſciences, which the paſſions and intereſt do not interfere to diſturb; wherein it is not thought that birth, profeſſion, or appointment have given a right to judge what the individual is not in a ſituation to underſtand; this more

certain progreſs cannot be obſerved, unleſs enlightened men ſhall ſearch in the other ſciences to bring them continually together. This progreſs at every ſtep exhibits the model they ought to follow; according to which they may form a judgment of their own efforts, aſcertain the falſe ſteps they may have taken, preſerve themſelves from pyrrhoniſm as well as credulity, and from a blind miſtruſt or too extenſive ſubmiſſion to the authorities even of men of reputation and knowledge.

The metaphyſical analyſis would, no doubt, lead to the ſame reſults, but it would have afforded only abſtract principles. In this method, the ſame abſtract principles being put into action, are enlightened by example, and fortified by ſucceſs.

Until the preſent epoch, the ſciences have been the patrimony only of a few; but they are already become common, and the moment approaches in which their elements, their principles, and their moſt ſimple practice, will become really popular. Then it will be ſeen how truly univerſal their utility will be in their application to the arts, and their influence on the general rectitude of the mind.

We may trace the progreſs of European nations in the inſtruction of children, or of men; a progreſs hitherto feeble, if we attend merely to the philoſophical ſyſtem of this inſtruction, which, in moſt parts, is ſtill confined, to the prejudices of the ſchools; but very rapid if we conſider the extent and nature of the

objects taught, which no longer comprehending any points of knowledge but such as are real, includes the elements of almost all the sciences; while men of all descriptions find in dictionaries, abridgments, and journals the information they require, though not always of the purest kind. We may examine the degree of utility resulting from oral instruction in the sciences, added to that which is immediately received by books and study; whether any advantage has resulted from the labour of compilation having become a real trade, a means of subsistence, which has multiplied the number of inferior works, but has likewise multiplied the means of acquiring common knowledge to men of small information. We may mark the influence which learned societies have exercised on the progress of the human mind, a barrier which will long be useful to oppose against ignorant pretenders and false knowledge: and lastly, we may exhibit the history of the encouragements given by governments to that progress, and the obstacles which have often been opposed to it in the same country and at the same period. We may shew what prejudices or principles of Machiavelism have directed them in this opposition to the advances of man towards truth; what views of interested policy, or even public good, have directed them when they have appeared, on the contrary, to be desirous of accelerating and protecting them.

The picture of the fine arts offers to our view results of no leſs brilliancy. Muſic is become, in a certain reſpect, a new art; while the ſcience of combination, and the application of numbers to the vibrations of ſonorous bodies, and the oſcillations of the air, have enlightened its theory. The arts of deſign, which formerly paſſed from Italy to Flanders, Spain and France, elevated themſelves in this laſt country to the ſame degree th at Italy carried them in the preceding epocha; where they ha ve been ſupported with more reputation than in Italy itſelf. The art of our painters is that of Raphael and Carrachi. All the means of the art being preſerved in the ſchools, are ſo far from being loſt, that they have become more extended. Neverthel eſs, it muſt be admitted, that too long a time has elapſed without producing a genius which may be compared to them, to admit of this long ſterility being attributed to chance. It is not becauſe the means of art are exhauſted that great ſucceſs is really become difficult; it is not that nature has refuſed us organs equally perfect with thoſe of the Italians of the ſixth age; it is merely to the changes of politics and manners that we ought to attribute, not the decay of the art, but the mediocrity of its productions.

Literary productions (cultivated in Italy with leſs ſucceſs but without having degenerated) have made ſuch progreſs in the French language, as has acquired it the

honour of becoming, in ſome ſort, the univerſal language of Europe.

The tragic art, in the hands of Corneille, Racine, and Voltaire, has been raiſed, by ſucceſſive progreſs, to a perfection before unknown. The comic art is indebted to Moliere for having ſpeedily arrived to an elevation not yet attained by any other people.

In England, from the commencement of the ſame epoch, and in a ſtill later time in Germany, language has been rendered more perfect. The art of poetry, as well as that of proſe writing, have been ſubjected, though with leſs docility than in France, to the univerſal rules of reaſon and nature, which ought to direct them. Theſe rules are equally true for all languages and all people, though the number of men has hitherto been few who have ſucceeded in arriving at the knowledge of them, and riſing to the juſt and pure taſte which reſults from that knowledge. Theſe rules preſided over the compoſitions of Sophocles and Virgil, as well as thoſe of Pope and Voltaire; they taught the Greeks and Romans, as well as the French, to be ſtruck with the ſame beauties, and ſhocked at the ſame faults. We may alſo inveſtigate what it is in each nation that has favoured or retarded the progreſs of theſe arts; by what cauſes the different kinds of poetry, or works in proſe, have attained in the different countries a degree of perfection ſo unequal; and how far theſe univerſal rules may, without offending their own fundamental

principles, be modified by the manners and opinions of the people who are to poſſeſs their productions, and even by the nature of the uſes to which their different ſpecies are deſigned. Thus, for example, a tragedy daily recited before a ſmall number of ſpectators, in a theatre of confined extent, cannot follow the ſame practical rules as a tragedy exhibited on an immenſe theatre, in the ſolemn feſtivals to which a whole people was invited. We may attempt to ſhew, that the rules of taſte poſſeſs the ſame generality and the ſame conſtancy, though they are ſuſceptible of the ſame modifications as the other laws of the moral and phyſical univerſe, when it is neceſſary to apply them to the immediate practice of a common art.

We may ſhew how far the art of printing, by multiplying and diſſeminating even thoſe works which are deſigned to be publicly read or recited, tranſmit them to a number of readers incomparably greater than that of the auditors. We may ſhew how moſt of the important deciſions by numerous aſſemblies, having been determined from the previous inſtruction their members had received by writing, there muſt have reſulted in the art of perſuaſion among the ancients and among the moderns, differences in the rules, analogous to the effect intended to be produced and the means employed; and how, laſtly, in the different ſpecies of knowledge, even with the ancients, certain works were for peruſal only—ſuch as thoſe of

hiſtory or philoſophy. The facility which the invention of printing affords, to enter into a more extenſive detail and more accurate developement, muſt have likewiſe influenced the ſame rules.

The progreſs of philoſophy and the ſciences have extended and favoured thoſe of letters, and theſe in their turn have ſerved to render the ſtudy of the ſciences more eaſy, and philoſophy itſelf more popular. They have lent mutual aſſiſtance to each other, in ſpite of the efforts of ignorance and folly to diſunite and render them inimical. Erudition, which a reſpect for human authority and ancient things ſeemed to have deſtined to ſupport the cauſe of hurtful prejudices; this erudition has, nevertheleſs, aſſiſted in deſtroying them, becauſe the ſciences and philoſophy have enlightened it with a more legitimate criticiſm. It already knew the method of weighing authorities, and comparing them with each other, but it has at length ſubmitted them to the tribunal of reaſon; it had rejected the prodigies, abſurd tales, and facts contrary to probability; but, by attacking the teſtimony upon which they were ſupported, men have learned to reject them, in ſpite of the force of theſe witneſſes, that they might give way to that evidence which the phyſical or moral improbability of extraordinary facts might carry with them.

Hence it is ſeen that all the intellectual occupations of men, however differing in their object, their method, or the qualities of mind which they require, have con-

curred in the progreſs of human reaſon. It is the ſame with the entire ſyſtem of the labours of men as with a well-compoſed work; of which the parts, though methodically diſtinct, muſt, nevertheleſs, be cloſely connected to form one ſingle whole, and tend to one ſingle object.

While we thus take a general view of the human ſpecies, we may prove that the diſcovery of true methods in all the ſciences; the extent of the theories they include; their application to all the objects of nature, and all the wants of man; the lines of communication eſtabliſhed between them; the great number of thoſe who cultivate them; and, laſtly, the multiplication of printing preſſes, are ſufficient to aſſure us, that none of them will hereafter deſcend below the point to which it has been carried. We may ſhew that the principles of philoſophy, the maxims of liberty, the knowledge of the true rights of man, and his real intereſt, are ſpread over too many nations, and in each of thoſe nations direct the opinions of too great a number of enlightened men, for them ever to fall again into oblivion.

What fear can be entertained when we find that the two languages the moſt univerſally extended, are, likewiſe, the languages of two people who poſſeſs the moſt extended liberty; who have beſt known its principles. So that no confederacy of tyrants, nor any poſſible combination of policy, can prevent the rights of reaſon, as well as thoſe of liberty, from being openly defended in both languages.

But if it be true, as every proſpect aſſures us, that the human race ſhall not again relapſe into its ancient barbarity; if every thing ought to aſſure us againſt that puſillanimous and corrupt ſyſtem which condemns man to eternal oſcillations between truth and falſehood, liberty and ſervitude, we muſt, at the ſame time, perceive that the light of information is ſpread over a ſmall part only of our globe; and the number of thoſe who poſſeſs real inſtruction, ſeems to vaniſh in the compariſon with the maſs of men conſigned over to ignorance and prejudice. We behold vaſt countries groaning under ſlavery, and preſenting nations in one place, degraded by the vices of civilization, ſo corrupt as to impede the progreſs of man; and in others, ſtill vegetating in the infancy of its early age. We perceive that the exertions of theſe laſt ages have done much for the progreſs of the human mind, but little for the perfection of the human ſpecies; much for the glory of man, ſomewhat for his liberty, but ſcarcely any thing yet for his happineſs. In a few directions, our eyes are ſtruck with a dazzling light; but thick darkneſs ſtill covers an immenſe horiſon. The mind of the philoſopher repoſes with ſatisfaction upon a ſmall number of objects, but the ſpectacle of the ſtupidity, the ſlavery, the extravagance, and the barbarity of man, afflicts him ſtill more ſtrongly. The friend of humanity cannot receive unmixed pleaſure but by abandoning himſelf to the endearing hope of the future.

Such are the objects which ought to enter into an hiſtorical ſketch of the progreſs of the human mind. We may endeavour, while we hold them forward, to ſhew more eſpecially the influence of this progreſs upon the opinions and the welfare of the general maſs of different nations, at the different epochas of their political exiſtence; to ſhew what truths they have known, what errors have been deſtroyed, what virtuous habits contracted, what new developement of their faculties has eſtabliſhed a happier proportion between their powers and their wants: And, under an oppoſite point of view, what may be the prejudices to which they have been enſlaved; what religious or political ſuperſtitions have been introduced; by what vices, of ignorance or deſpotiſm, they have been corrupted; and to what miſeries, violence or their own degradation have ſubjected them.

Hitherto, political hiſtory, as well as that of philoſophy and the ſciences, has been merely the hiſtory of a few men. That which forms in truth the human ſpecies, the maſs of families, which ſubſiſt almoſt entirely upon their labour, has been forgotten; and even among that claſs of men who, devoted to public profeſſions, act not for themſelves but for ſociety; whoſe occupation it is to inſtruct, to govern, to defend, and to comfort other men, the chiefs only have fixed the attention of hiſtorians.

It is enough for the hiſtory of individuals that facts be collected, but the hiſtory of a maſs of men can be founded only on obſervations; and, in order to ſelect them, and to ſeize the eſſential traits, it is requiſite the hiſtorian ſhould poſſeſs conſiderable information, and no leſs of philoſophy, to make a proper uſe of them.

Again, theſe obſervations relate to common things, which ſtrike the eyes of all, and which every one is capable himſelf of knowing when he thinks proper to attend to them. Hence the greater part have been collected by travellers and foreigners, becauſe things very trivial in the place where they exiſt, have become an object of curioſity to ſtrangers. Now it unfortunately happens, that theſe travellers are almoſt always inaccurate obſervers; they ſee objects with too much rapidity, through the medium of the prejudices of their own country, and not unfrequently by the eyes of the men of the country they run through: their conferences are held with ſuch men as accident has connected them with; and the anſwer is, in almoſt every caſe, dictated by intereſt, party ſpirit, national pride, or ill-humour.

It is not alone, therefore, to the baſeneſs of hiſtorians, as has been juſtly urged againſt thoſe of monarchies, that we are to attribute the want of monuments from which we may trace this moſt important part of the hiſtory of men.

The defect cannot be ſupplied but very imperfectly by a knowledge of the laws, the practical principles of go-

vernment and public economy, or by that of religion and general prejudices.

In fact, the law as written, and the law as executed; the principles of thoſe who govern, and the manner in which their action is modified by the genius of thoſe who are governed; the inſtitution ſuch as it has flowed from the men who formed it, and ſuch as it becomes when realized by practice; the religion of books, and that of the people; the apparent univerſality of prejudice, and the real reception which it obtains, may differ to ſuch a degree, that the effects ſhall abſolutely ceaſe to correſpond to theſe public and known cauſes.

To this part of the hiſtory of the human ſpecies, which is the moſt obſcure, the moſt neglected, and for which facts offer us ſo few materials, it is that we ſhould more particularly attend in this outline; and whether an account be rendered of a new diſcovery, an important theory, a new ſyſtem of laws, or a political revolution, the problem to be determined will conſiſt in aſcertaining what effects ought to have ariſen from the will of the moſt numerous portion of each ſociety. This is the true object of philoſophy; becauſe all the intermediate effects of theſe ſame cauſes can be conſidered only as means of acting, at leaſt upon this portion, which truly conſtitutes the maſs of the human race.

It is by arriving at this laſt link of the chain, that the obſervation of paſt events, as well as the knowledge acquired by meditation, become truly uſeful. It is by

arriving at this term, that men learn to appreciate their real titles to reputation, or to enjoy, with a well-grounded pleaſure, the progreſs of their reaſon. Hence, alone, it is, that they can judge of the true improvement of the human ſpecies.

The notion of referring every thing to this latter point, is dictated by juſtice and by reaſon ; but it may be ſuppoſed to be without foundation. The ſuppoſition, nevertheleſs, is not true ; and it will be enough if we prove it in this place by two ſtriking examples.

The poſſeſſion of the common objects of conſumption, however abundantly they may now ſatisfy the wants of man ; of thoſe objects which the ground produces in conſequence of human effort, is due to the continued exertions of induſtry, aſſiſted by the light of the ſciences ; and thence it follows, from hiſtory, that this poſſeſſion attaches itſelf to the gain of the battle of Salamis, without which the darkneſs of oriental deſpotiſm threatened to cover the whole of the earth. And, again, the accurate obſervation of the longitude, which preſerves navigators from ſhipwreck, is indebted to a theory which, by a chain of truths, goes as far back as to diſcoveries made in the ſchool of Plato, though buried for twenty centuries in perfect inutility.

# TENTH EPOCH.

## *Future Progreſs of Mankind.*

IF man can predict, almoſt with certainty, thoſe appearances of which he underſtands the laws; if, even when the laws are unknown to him, experience or the paſt enables him to foreſee, with conſiderable probability, future appearances; why ſhould we ſuppoſe it a chimerical undertaking to delineate, with ſome degree of truth, the picture of the future deſtiny of mankind from the reſults of its hiſtory? The only foundation of faith in the natural ſciences is the principle, that the general laws, known or unknown, which regulate the phenomena of the univerſe, are regular and conſtant; and why ſhould this principle, applicable to the other operations of nature, be leſs true when applied to the developement of the intellectual and moral faculties of man? In ſhort, as opinions formed from experience, relative to the ſame claſs of objects, are the only rule by which men of ſoundeſt underſtanding are governed in their conduct, why ſhould the philoſopher be proſcribed from ſupporting his conjectures upon a ſimilar baſis, provided he attribute to them no greater certainty than the number, the conſiſtency, and the accuracy of actual obſervations ſhall authoriſe?

Our hopes, as to the future condition of the human ſpecies, may be reduced to three points: the deſtruction of inequality between different nations; the progreſs of equality in one and the ſame nation; and laſtly, the real improvement of man.

Will not every nation one day arrive at the ſtate of civilization attained by thoſe people who are moſt enlightened, moſt free, moſt exempt from prejudices, as the French, for inſtance, and the Anglo-Americans? Will not the ſlavery of countries ſubjected to kings, the barbarity of African tribes, and the ignorance of ſavages gradually vaniſh? Is there upon the face of the globe a ſingle ſpot the inhabitants of which are condemned by nature never to enjoy liberty, never to exerciſe their reaſon?

Does the difference of knowledge, of means, and of wealth, obſervable hitherto in all civilized nations, between the claſſes into which the people conſtituting thoſe nations are divided; does that inequality, which the earlieſt progreſs of ſociety has augmented, or, to ſpeak more properly, produced, belong to civilization itſelf, or to the imperfections of the ſocial order? Muſt it not continually weaken, in order to give place to that actual equality, the chief end of the ſocial art, which diminiſhing even the effects of the natural difference of the faculties, leaves no other inequality ſubſiſting but what is uſeful to the intereſt of all, becauſe it will favour civilization, inſtruction, and induſtry, without drawing

after it either dependence, humiliation or poverty? In a word, will not men be continually verging towards that ſtate, in which all will poſſeſs the requiſite knowledge for conducting themſelves in the common affairs of life by their own reaſon, and of maintaining that reaſon uncontaminated by prejudices; in which they will underſtand their rights, and exerciſe them according to their opinion and their conſcience; in which all will be able, by the developement of their faculties, to procure the certain means of providing for their wants; laſtly, in which folly and wretchedneſs will be accidents, happening only now and then, and not the habitual lot of a conſiderable portion of ſociety?

In fine, may it not be expected that the human race will be meliorated by new diſcoveries in the ſciences and the arts, and, as an unavoidable conſequence, in the means of individual and general proſperity; by farther progreſs in the principles of conduct, and in moral practice; and laſtly, by the real improvement of our faculties, moral, intellectual and phyſical, which may be the reſult either of the improvement of the inſtruments which increaſe the power and direct the exerciſe of thoſe faculties, or of the improvement of our natural organization itſelf?

In examining the three queſtions we have enumerated, we ſhall find the ſtrongeſt reaſons to believe, from paſt experience, from obſervation of the progreſs which the ſciences and civilization have hitherto made,

and from the analyſis of the march of the human underſtanding, and the developement of its faculties, that nature has fixed no limits to our hopes.

If we take a ſurvey of the exiſting ſtate of the globe, we ſhall perceive, in the firſt place, that in Europe the principles of the French conſtitution are thoſe of every enlightened mind. We ſhall perceive that they are too widely diſſeminated, and too openly profeſſed, for the efforts of tyrants and prieſts to prevent them from penetrating by degrees into the miſerable cottages of their ſlaves, where they will ſoon revive thoſe embers of good ſenſe, and rouſe that ſilent indignation which the habit of ſuffering and terror have failed totally to extinguiſh in the minds of the oppreſſed.

If we next look at the different nations, we ſhall obſerve in each, particular obſtacles oppoſing, or certain diſpoſitions favouring this revolution. We ſhall diſtinguiſh ſome in which it will be effected, perhaps ſlowly, by the wiſdom of the reſpective governments; and others in which, rendered violent by reſiſtance, the governments themſelves will neceſſarily be involved in its terrible and rapid motions.

Can it be ſuppoſed that either the wiſdom or the ſenſeleſs feuds of European nations, co-operating with the ſlow but certain effects of the progreſs of their colonies, will not ſhortly produce the independence of the entire new world; and that then, European population, lending its aid, will fail to civilize or cauſe to diſappear,

even without conqueſt, thoſe ſavage nations ſtill occupying there immenſe tracts of country?

Run through the hiſtory of our projects and eſtabliſhments in Africa or in Aſia, and you will ſee our monopolies, our treachery, our ſanguinary contempt for men of a different complexion or different creed, and the proſelyting fury or the intrigues of our prieſts, deſtroying that ſentiment of reſpect and benevolence which the ſuperiority of our information and the advantages of our commerce had at firſt obtained.

But the period is doubtleſs approaching, when, no longer exhibiting to the view of theſe people corruptors only or tyrants, we ſhall become to them inſtruments of benefit, and the generous champions of their redemption from bondage.

The cultivation of the ſugar cane, which is now eſtabliſhing itſelf in Africa, will put an end to the ſhameful robbery by which, for two centuries, that country has been depopulated and depraved.

Already, in Great Britain, ſome friends of humanity have ſet the example; and if its Machiavelian government, forced to reſpect public reaſon, has not dared to oppoſe this meaſure, what may we not expect from the ſame ſpirit, when, after the reform of an object and venal conſtitution, it ſhall become worthy of a humane and generous people? Will not France be eager to imitate enterpriſes which the philanthropy and the true intereſt of Europe will equally have dictated? Spices

are already introduced into the French iſlands, Guiana, and ſome Engliſh ſettlements; and we ſhall ſoon witneſs the fall of that monopoly which the Dutch have ſupported by ſuch a complication of perfidy, of oppreſſion, and of crimes. The people of Europe will learn in time that excluſive and chartered companies are but a tax upon the reſpective nation, granted for the purpoſe of placing a new inſtrument in the hands of its government for the maintenance of tyranny.

Then will the inhabitants of the European quarter of the world, ſatisfied with an unreſtricted commerce, too enlightened as to their own rights to ſport with the rights of others, reſpect that independence which they have hitherto violated with ſuch audacity. Then will their eſtabliſhments, inſtead of being filled by the creatures of power, who, availing themſelves of a place or a privilege, haſten, by rapine and perfidy, to amaſs wealth, in order to purchaſe, on their return, honours and titles, be peopled with induſtrious men, ſeeking in thoſe happy climates that eaſe and comfort which in their native country eluded their purſuit. There will they be retained by liberty, ambition having loſt its allurements; and thoſe ſettlements of robbers will then become colonies of citizens, by whom will be planted in Africa and Aſia the principles and example of the freedom, reaſon, and illumination of Europe. To thoſe monks alſo, who inculcate on the natives of the countries in queſtion the moſt ſhameful ſuperſtitions

only, and who excite diſguſt by menacing them with a new tyranny, will ſucceed men of integrity and benevolence, anxious to ſpread among theſe people truths uſeful to their happineſs, and to enlighten them upon their intereſts as well as their rights: for the love of truth is alſo a paſſion; and when it ſhall have at home no groſs prejudices to combat, no degrading errors to diſſipate, it will naturally extend its regards, and convey its efforts to remote and foreign climes.

Theſe immenſe countries will afford ample ſcope for the gratification of this paſſion. In one place will be found a numerous people, who, to arrive at civilization, appear only to wait till we ſhall furniſh them with the means; and, who, treated as brothers by Europeans, would inſtantly become their friends and diſciples. In another will be ſeen nations crouching under the yoke of ſacred deſpots or ſtupid conquerors, and who, for ſo many ages, have looked for ſome friendly hand to deliver them: while a third will exhibit either tribes nearly ſavage, excluded from the benefits of ſuperior civilization by the ſeverity of their climate, which deters thoſe who might otherwiſe be diſpoſed to communicate theſe benefits from making the attempt; or elſe conquering hordes, knowing no law but force, no trade but robbery. The advances of theſe two laſt claſſes will be more ſlow, and accompanied with more frequent ſtorms; it may even happen that, reduced in numbers in proportion as they ſee themſelves repelled

by civilized nations, they will in the end wholly diſappear, or their ſcanty remains become blended with their neighbours.

We might ſhew that theſe events will be the inevitable conſequence not only of the progreſs of Europe, but of that freedom which the republic of France, as well as of America, have it in their power, and feel it to be their intereſt, to reſtore to the commerce of Africa and Aſia: and that they muſt alſo neceſſarily reſult alike, whether from the new policy of European nations, or their obſtinate adherence to mercantile prejudices.

A ſingle combination, a new invaſion of Aſia by the Tartars, might be ſufficient to fruſtrate this revolution; but it may be ſhewn that ſuch combination is henceforth impoſſible to be effected. Meanwhile every thing ſeems to be preparing the ſpeedy downfal of the religions of the Eaſt, which, partaking of the abjectneſs of their miniſters, left almoſt excluſively to the people, and, in the majority of countries, conſidered by powerful men as political inſtitutions only, no longer threaten to retain human reaſon in a ſtate of hopeleſs bondage, and in the eternal ſhackles of infancy.

The march of theſe people will be leſs ſlow and more ſure than ours has been, becauſe they will derive from us that light which we have been obliged to diſcover, and becauſe for them to acquire the ſimple truths and infallible methods which we have obtained after long

wandering in the mazes of error, it will be ſufficient to ſeize upon their developements and proofs in our diſcourſes and publications. If the progreſs of the Greeks was loſt upon other nations, it was for want of a communication between the people; and to the tyrannical domination of the Romans muſt the whole blame be aſcribed. But, when mutual wants ſhall have drawn cloſer the intercourſe and ties of all mankind; when the moſt powerful nations ſhall have eſtabliſhed into political principles equality between ſocieties as between individuals, and reſpect for the independence of feeble ſtates, as well as compaſſion for ignorance and wretchedneſs; when to the maxims which bear heavily upon the ſpring of the human faculties, thoſe ſhall ſucceed which favour their action and energy, will there ſtill be reaſon to fear that the globe will contain ſpaces inacceſſible to knowledge, or that the pride of deſpotiſm will be able to oppoſe barriers to truth that will long be inſurmountable.

Then will arrive the moment in which the ſun will obſerve in its courſe free nations only, acknowledging no other maſter than their reaſon; in which tyrants and ſlaves, prieſts and their ſtupid or hypocritical inſtruments, will no longer exiſt but in hiſtory and upon the ſtage; in which our only concern will be to lament their paſt victims and dupes, and, by the recollection of their horrid enormities, to exerciſe a vigilant circumſpection, that we may be able inſtantly to recogniſe and effectually

to ſtifle by the force of reaſon, the ſeeds of ſuperſtition and tyranny, ſhould they ever preſume again to make their appearance upon the earth.

In tracing the hiſtory of ſocieties we have had occaſion to remark, that there frequently exiſts a conſiderable diſtinction between the rights which the law acknowledges in the citizens of a ſtate, and thoſe which they really enjoy; between the equality eſtabliſhed by political inſtitutions, and that which takes place between the individual members; and that to this diſproportion was chiefly owing the deſtruction of liberty in the ancient republics, the ſtorms which they had to encounter, and the weakneſs that ſurrendered them into the power of foreign tyrants.

Three principal cauſes may be aſſigned for theſe diſtinctions: inequality of wealth, inequality of condition between him whoſe reſources of ſubſiſtence are ſecured to himſelf and deſcendable to his family, and him whoſe reſources are annihilated with the termination of his life, or rather of that part of his life in which he is capable of labour; and laſtly, inequality of inſtruction.

It will therefore behove us to ſhew, that theſe three kinds of real inequality muſt continually diminiſh; but without becoming abſolutely extinct, ſince they have natural and neceſſary cauſes, which it would be abſurd as well as dangerous to think of deſtroying; nor can we attempt even to deſtroy entirely their effects, without opening at the ſame time more fruitful ſources of inequa-

lity, and giving to the rights of man a more direct and more fatal blow.

It is eaſy to prove that fortunes naturally tend to equality, and that their extreme diſproportion either could not exiſt, or would quickly ceaſe, if poſitive law had not introduced factitious means of amaſſing and perpetuating them; if an entire freedom of commerce and induſtry were brought forward to ſuperſede the advantages which prohibitory laws and fiſcal rights neceſſarily give to the rich over the poor; if duties upon every ſort of transfer and convention, if prohibitions to certain kinds, and the tedious and expenſive formalities preſcribed to other kinds; if the uncertainty and expence attending their execution had not palſied the efforts of the poor, and ſwallowed up their little accumulations; if political inſtitutions had not laid certain prolific ſources of opulence open to a few, and ſhut them againſt the many; if avarice, and the other prejudices incident to an advanced age, did not preſide over marriages; in fine, if the ſimplicity of our manners and the wiſdom of our inſtitutions were calculated to prevent riches from operating as the means of gratifying vanity or ambition, at the ſame time that an ill-judged auſterity, by forbidding us to render them a means of coſtly pleaſures, ſhould not force us to preſerve the wealth that had once been accumulated.

Let us compare, in the enlightened nations of Europe, the actual population with the extent of territory;

let us obſerve, amidſt the ſpectacle of their culture and their induſtry, the way in which labour and the means of ſubſiſtance are diſtributed, and we ſhall ſee that it will be impoſſible to maintain theſe means in the ſame extent, and of conſequence to maintain the ſame maſs of population, if any conſiderable number of individuals ceaſe to have, as now, nothing but their induſtry, and the pittance neceſſary to ſet it at work, or to render its profit equal to the ſupplying their own wants and thoſe of their family. But neither this induſtry, nor the ſcanty reſerve we have mentioned, can be perpetuated, except ſo long as the life and health of each head of a family is perpetuated. Their little fortune therefore is at beſt an annuity, but in reality with features of precarioufneſs that an annuity wants: and from hence reſults a moſt important difference between this claſs of ſociety and the claſs of men whoſe reſources conſiſt either of a landed income, or the intereſt of a capital, which depends little upon perſonal induſtry, and is therefore not ſubject to ſimilar riſks.

There exiſts then a neceſſary cauſe of inequality, of dependence, and even of penury, which menaces without ceaſing the moſt numerous and active claſs of our ſocieties.

This inequality, however, may be in great meaſure deſtroyed, by ſetting chance againſt chance, in ſecuring to him who attains old age a ſupport, ariſing from his ſavings, but augmented by thoſe of other perſons, who,

making a ſimilar addition to a common ſtock, may happen to die before they ſhall have occaſion to recur to it; in procuring, by a like regulation, an equal reſource for women who may loſe their huſbands, or children who may loſe their father; laſtly, in preparing for thoſe youths, who arrive at an age to be capable of working for themſelves, and of giving birth to a new family, the benefit of a capital ſufficient to employ their induſtry, and increaſed at the expence of thoſe whom premature death may cut off before they arrive at that period. To the application of mathematics to the probabilities of life and the intereſt of money, are we indebted for the hint of theſe means, already employed with ſome degree of ſucceſs, though they have not been carried to ſuch extent, or employed in ſuch variety of forms, as would render them truly beneficial, not merely to a few families, but to the whole maſs of ſociety, which would thereby be relieved from that periodical ruin obſervable in a number of families, the ever-flowing ſource of corruption and depravity.

Theſe eſtabliſhments, which may be formed in the name of the ſocial power, and become one of its greateſt benefits, might alſo be the reſult of individual aſſociations, which may be inſtituted without danger, when the principles by which the eſtabliſhments ought to be organiſed, ſhall have become more popular, and the errors, by which a great number of ſuch aſſociations have

been deſtroyed, ſhall ceaſe to be an object of apprehenſion.

We may enumerate other means of ſecuring the equality in queſtion, either by preventing credit from continuing to be a privilege excluſively attached to large fortunes, without at the ſame time placing it upon a leſs ſolid foundation; or by rendering the progreſs of induſtry and the activity of commerce more independent of the exiſtence of great capitaliſts: and for theſe reſources alſo we ſhall be indebted to the ſcience of calculation.

The equality of inſtruction we can hope to attain, and with which we ought to be ſatisfied, is that which excludes every ſpecies of dependence, whether forced or voluntary. We may exhibit, in the actual ſtate of human knowledge, the eaſy means by which this end may be attained even for thoſe who can devote to ſtudy but a few years of infancy, and, in ſubſequent life, only ſome occaſional hours of leiſure. We might ſhew, that by a happy choice of the ſubjects to be taught, and of the mode of inculcating them, the entire maſs of a people may be inſtructed in every thing neceſſary for the purpoſes of domeſtic economy; for the tranſaction of their affairs; for the free developement of their induſtry and their faculties; for the knowledge, exerciſe and protection of their rights; for a ſenſe of their duties, and the power of diſcharging them; for the capacity of judging both their own actions, and the actions of others, by their own underſtanding; for the acquiſition of all the

delicate or dignified ſentiments that are an honour to humanity; for freeing themſelves from a blind confidence in thoſe to whom they may entruſt the care of their intereſts, and the ſecurity of their rights; for chuſing and watching over them, ſo as no longer to be the dupes of thoſe popular errors that torment and way-lay the life of man with ſuperſtitious fears and chimerical hopes; for defending themſelves againſt prejudices by the ſole energy of reaſon; in fine, for eſcaping from the deluſions of impoſture, which would ſpread ſnares for their fortune, their health, their freedom of opinion and of conſcience, under the pretext of enriching, of healing, and of ſaving them.

The inhabitants of the ſame country being then no longer diſtinguiſhed among themſelves by the alternate uſe of a refined or a vulgar language; being equally governed by their own underſtandings; being no more confined to the mechanical knowledge of the proceſſes of the arts, and the mere routine of a profeſſion; no more dependent in the moſt trifling affairs, and for the ſlighteſt information, upon men of ſkill, who, by a neceſſary aſcendancy, controul and govern, a real equality muſt be the reſult; ſince the difference of talents and information can no longer place a barrier between men whoſe ſentiments, ideas, and phraſeology are capable of being mutually underſtood, of whom the one part may deſire to be inſtructed, but cannot need to be guided by the other; of whom the one part may delegate

to the other the office of a rational government, but cannot be forced to regard them with blind and unlimited confidence.

Then it is that this ſuperiority will become an advantage even for thoſe who do not partake of it, ſince it will exiſt not as their enemy, but as their friend. The natural difference of faculties between men whoſe underſtandings have not been cultivated, produces, even among ſavages, empirics and dupes, the one ſkilled in deluſion, the others eaſy to be deceived: the ſame difference will doubtleſs exiſt among a people where inſtruction ſhall be truly general; but it will be here between men of exalted underſtandings and men of ſound minds, who can admire the radiance of knowledge, without ſuffering themſelves to be dazzled by it; between talents and genius on the one hand, and on the other the good ſenſe that knows how to appreciate and enjoy them: and ſhould this difference be even greater in the latter caſe, comparing the force and extent of the faculties only, ſtill would the effects of it not be the leſs imperceptible in the relations of men with each other, in whatever is intereſting to their independence or their happineſs.

The different cauſes of equality we have enumerated do not act diſtinctly and apart; they unite, they incorporate, they ſupport one another; and from their combined influence reſults an action proportionably forcible, ſure, and conſtant. If inſtruction become more equal,

induſtry thence acquires greater equality, and from induſtry the effect is communicated to fortunes; and equality of fortunes neceſſarily contributes to that of inſtruction, while equality of nations, like that eſtabliſhed between individuals, have alſo a mutual operation upon each other.

In fine, inſtruction, properly directed, corrects the natural inequality of the faculties, inſtead of ſtrengthening it, in like manner as good laws remedy the natural inequality of the means of ſubſiſtance; or as, in ſocieties whoſe inſtitutions ſhall have effected this equality, liberty, though ſubjected to a regular government, will be more extenſive, more complete, than in the independence of ſavage life. Then has the ſocial art accompliſhed its end, that of ſecuring and extending for all the enjoyment of the common rights which impartial nature has bequeathed to all.

The advantages that muſt reſult from the ſtate of improvement, of which I have proved we may almoſt entertain the certain hope, can have no limit but the abſolute perfection of the human ſpecies, ſince, in proportion as different kinds of equality ſhall be eſtabliſhed as to the various means of providing for our wants, as to a more univerſal inſtruction, and a more entire liberty, the more real will be this equality, and the nearer will it approach towards embracing every thing truly important to the happineſs of mankind.

It is then by examining the progreſſion and the laws of this perfection, that we can alone arrive at the knowledge of the extent or boundary of our hopes.

It has never yet been ſuppoſed, that all the facts of nature, and all the means of acquiring preciſion in the computation and analyſis of thoſe facts, and all the connections of objects with each other, and all the poſſible combinations of ideas, can be exhauſted by the human mind. The mere relations of magnitude, the combinations, quantity and extent of this idea alone, form already a ſyſtem too immenſe for the mind of man ever to graſp the whole of it; a portion, more vaſt than that which he may have penetrated, will always remain unknown to him. It has, however, been imagined, that, as man can know a part only of the objects which the nature of his intelligence permits him to inveſtigate, he muſt at length reach the point at which, the number and complication of thoſe he already knows having abſorbed all his powers, farther progreſs will become abſolutely impoſſible.

But, in proportion as facts are multiplied, man learns to claſs them, and reduce them to more general facts, at the ſame time that the inſtruments and methods for obſerving them, and regiſtering them with exactneſs, acquire a new preciſion: in proportion as relations more multifarious between a greater number of objects are diſcovered, man continues to reduce them to relations of a wider denomination, to expreſs them with

greater ſimplicity, and to preſent them in a way which may enable a given ſtrength of mind, with a given quantity of attention, to take in a greater number than before: in proportion as the underſtanding embraces more complicated combinations, a ſimple mode of announcing theſe combinations renders them more eaſy to be treated. Hence it follows that truths, the diſcovery of which was accompanied with the moſt laborious efforts, and which at firſt could not be comprehended but by men of the ſevereſt attention, will after a time be unfolded and proved in methods that are not above the efforts of an ordinary capacity. And thus ſhould the methods that led to new combinations be exhauſted, ſhould their applications to queſtions, ſtill unreſolved, demand exertions greater than the time or the powers of the learned can beſtow, more general methods, means more ſimple would ſoon come to their aid, and open a farther career to genius. The energy, the real extent of the human intellect may remain the ſame; but the inſtruments which it can employ will be multiplied and improved; but the language which fixes and determines the ideas will acquire more preciſion and compaſs; and it will not be here, as in the ſcience of mechanics, where, to increaſe the force, we muſt diminiſh the velocity; on the contrary, the methods by which genius will arrive at the diſcovery of new truths, augment at once both the force and the rapidity of its operations.

In a word, theſe changes being themſelves the neceſſary conſequences of additional progreſs in the knowledge of truths of detail, and the cauſe which produces a demand for new reſources, producing at the ſame time the means of ſupplying them, it follows that the actual maſs of truths appertaining to the ſciences of obſervation, calculation and experiment, may be perpetually augmented, and that without ſuppoſing the faculties of man to poſſeſs a force and activity, and a ſcope of action greater than before.

By applying theſe general reflections to the different ſciences, we might exhibit, reſpecting each, examples of this progreſſive improvement, which would remove all poſſibility of doubt as to the certainty of the further improvement that may be expected. We might indicate particularly in thoſe which prejudice conſiders as neareſt to being exhauſted, the marks of an almoſt certain and early advance. We might illuſtrate the extent, the preciſion, the unity which muſt be added to the ſyſtem comprehending all human knowledge, by a more general and philoſophical application of the ſcience of calculation to the individual branches of which that ſyſtem is compoſed. We might ſhew how favourable to our hopes a more univerſal inſtruction would prove, by which a greater number of individuals would acquire the elementary knowledge that might inſpire them with a taſte for a particular kind of ſtudy; and how much theſe hopes would

be further heightened if this application to ſtudy were to be rendered ſtill more extenſive by a more general caſe of circumſtances. At preſent, in the moſt enlightened countries, ſcarcely do one in fifty of thoſe whom nature has bleſſed with talents receive the neceſſary inſtruction for the developement of them: how different would be the proportion in the caſe we are ſuppoſing? and of conſequence how different the number of men deſtined to extend the horizon of the ſciences?

We might ſhew how much this equality of inſtruction, joined to the national equality we have ſuppoſed to take place, would accelerate thoſe ſciences, the advancement of which depends upon obſervations repeated in a greater number of inſtances, and extending over a larger portion of territory; how much benefit would be derived therefrom to mineralogy, botany, zoology, and the doctrine of meteors; in ſhort, how infinite the difference between the feeble means hitherto enjoyed by theſe ſciences, and which yet have led to uſeful and important truths, and the magnitude of thoſe which man would then have it in his power to employ.

Laſtly, we might prove that, from the advantage of being cultivated by a greater number of perſons, even the progreſs of thoſe ſciences, in which diſcoveries are the fruit of individual meditation, would, alſo, be conſiderably advanced by means of minuter improvements, not requiring the ſtrength of intellect, neceſſary for inventions, but that preſent themſelves to the reflection of the leaſt profound underſtandings.

If we paſs to the progreſs of the arts, thoſe arts particularly the theory of which depends on theſe very ſame ſciences, we ſhall find that it can have no inferior limits; that their proceſſes are ſuſceptible of the ſame improvement, the ſame ſimplifications, as the ſcientific methods; that inſtruments, machines, looms, will add every day to the capabilities and ſkill of man—will augment at once the excellence and preciſion of his works, while they will diminiſh the time and labour neceſſary for executing them; and that then will diſappear the obſtacles that ſtill oppoſe themſelves to the progreſs in queſtion, accidents which will be foreſeen and prevented; and laſtly, the unhealthineſs at preſent attendant upon certain operations, habits and climates.

A ſmaller portion of ground will then be made to produce a proportion of proviſions of higher value or greater utility; a greater quantity of enjoyment will be procured at a ſmaller expence of conſumption; the ſame manufactured or artificial commodity will be produced at a ſmaller expence of raw materials, or will be ſtronger and more durable; every ſoil will be appropriated to productions which will ſatisfy a greater number of wants with the leaſt labour, and taken in the ſmalleſt quantities. Thus the means of health and frugality will be encreaſed, together with the inſtruments in the arts of production, of curing commodities and manufacturing their produce, without demanding the ſacrifice of one enjoyment by the conſumer.

Thus, not only the ſame ſpecies of ground will nouriſh a greater number of individuals, but each individual, with a leſs quantity of labour, will labour more ſucceſsfully, and be ſurrounded with greater conveniences.

It may, however, be demanded, whether, amidſt this improvement in induſtry and happineſs, where the wants and faculties of men will continually become better proportioned, each ſucceſſive generation poſſeſs more various ſtores, and of conſequence in each generation the number of individuals be greatly increaſed; it may, I ſay, be demanded, whether theſe principles of improvement and increaſe may not, by their continual operation, ultimately lead to degeneracy and deſtruction? Whether the number of inhabitants in the univerſe at length exceeding the means of exiſtence, there will not reſult a continual decay of happineſs and population, and a progreſs towards barbariſm, or at leaſt a ſort of oſcillation between good and evil? Will not this oſcillation, in ſocieties arrived at this epoch, be a perennial ſource of periodical calamity and diſtreſs? In a word, do not theſe conſiderations point out the limit at which all farther improvement will become impoſſible, and conſequently the perfectibility of man arrive at a period which in the immenſity of ages it may attain, but which it can never paſs?

There is, doubtleſs, no individual that does not perceive how very remote from us will be this period:

but muſt it one day arrive? It is equally impoſſible to pronounce on either ſide reſpecting an event, which can only be realized at an epoch when the human ſpecies will neceſſarily have acquired a degree of knowledge, of which our ſhort-ſighted underſtandings can ſcarcely form an idea. And who ſhall preſume to foretel to what perfection the art of converting the elements of life into ſubſtances fitted for our uſe, may, in a progreſſion of ages, be brought?

But ſuppoſing the affirmative, ſuppoſing it actually to take place, there would reſult from it nothing alarming, either to the happineſs of the human race, or its indefinite perfectibility; if we conſider, that prior to this period the progreſs of reaſon will have walked hand in hand with that of the ſciences; that the abſurd prejudices of ſuperſtition will have ceaſed to infuſe into morality a harſhneſs that corrupts and degrades, inſtead of purifying and exalting it; that men will then know, that the duties they may be under relative to propagation will conſiſt not in the queſtion of giving *exiſtence* to a greater number of beings, but *happineſs*; will have for their object, the general welfare of the human ſpecies; of the ſociety in which they live; of the family to which they are attached; and not the puerile idea of encumbering the earth with uſeleſs and wretched mortals. Accordingly, there might then be a limit to the poſſible maſs of proviſion, and of conſequence to the greateſt poſſible population, without that premature de-

ſtruction, ſo contrary to nature and to ſocial proſperity, of a portion of the beings who may have received life, being the reſult of thoſe limits.

As the diſcovery, or rather the accurate ſolution of the firſt principles of metaphyſics, morals, and politics, is ſtill recent; and as it has been preceded by the knowledge of a conſiderable number of truths of detail, the prejudice, that they have thereby arrived at their higheſt point of improvement, becomes eaſily eſtabliſhed in the mind; and men ſuppoſe that nothing remains to be done, becauſe there are no longer any groſs errors to deſtroy, or fundamental truths to eſtabliſh.

But it requires little penetration to perceive how imperfect is ſtill the developement of the intellectual and moral faculties of man; how much farther the ſphere of his duties, including therein the influence of his actions upon the welfare of his fellow creatures and of the ſociety to which he belongs, may be extended by a more fixed, a more profound and more accurate obſervation of that influence; how many queſtions ſtill remain to be ſolved, how many ſocial ties to be examined, before we can aſcertain the preciſe catalogue of the individual rights of man, as well as of the rights which the ſocial ſtate confers upon the whole community with regard to each member. Have we even aſcertained with any preciſion the limits of theſe rights, whether as they exiſt between different ſocieties, or in any ſingle ſociety, over its members, in caſes of diviſion and hoſ-

ſility; or, in ſine, the rights of individuals, their ſpontaneous unions in the caſe of a primitive formation, or their ſeparations when ſeparation becomes neceſſary?

If we paſs on to the theory which ought to direct the application of theſe principles, and ſerve as the baſis of the ſocial art, do we not ſee the neceſſity of acquiring an exactneſs of which firſt truths, from their general nature, are not ſuſceptible? Are we ſo far advanced as to conſider juſtice, or a proved and acknowledged utility and not vague, uncertain, and arbitrary views of pretended political advantages, as the foundation of all inſtitutions of law? Among the variety, almoſt infinite, of poſſible ſyſtems, in which the general principles of equality and natural rights ſhould be reſpected, have we yet fixed upon the preciſe rules of aſcertaining with certainty thoſe which beſt ſecure the preſervation of theſe rights, which afford the freeſt ſcope for their exerciſe and enjoyment, which promote moſt effectually the peace and welfare of individuals, and the ſtrength, repoſe, and proſperity of nations?

The application of the arithmetic of combinations and probabilities to theſe ſciences, promiſes an improvement by ſo much the more conſiderable, as it is the only means of giving to their reſults an almoſt mathematical preciſion, and of appreciating thier degree of certainty or probability. The facts upon which theſe reſults are built may, indeed, without calculation, and by a glance only, lead to ſome general truths; teach us whether

the effects produced by ſuch a cauſe have been favourable or the reverſe: but if theſe facts have neither been counted nor eſtimated; if theſe effects have not been the object of an exact admeaſurment, we cannot judge of the quantity of good or evil they contain: if the good or evil nearly balance each other, nay, if the difference be not conſiderable, we cannot pronounce with certainty to which ſide the balance inclines. Without the application of this arithmetic, it would be almoſt impoſſible to chuſe, with ſound reaſon, between two combinations propoſing to themſelves the ſame end, when their advantages are not diſtinguiſhable by any conſiderable difference. In fine, without this alliance, theſe ſciences would remain forever groſs and narrow, for want of inſtruments of ſufficient poliſh to lay hold of the ſubtility of truth—for want of machines ſufficiently accurate to ſound the bottom of the well where it conceals its wealth.

Meanwhile this application, notwithſtanding the happy efforts of certain geometers, is ſtill, if I may ſo ſpeak, in its firſt rudiments; and to the following generations muſt it open a ſource of intelligence inexhauſtible as calculation itſelf, or as the combinations, analogies, and facts that may be brought within the ſphere of its operations.

There is another ſpecies of progreſs, appertaining to the ſciences in queſtion, equally important; I mean, the improvement of their language, at preſent ſo vague

and ſo obſcure. To this improvement muſt they owe the advantage of becoming popular, even in their firſt elements. Genius can triumph over theſe inaccuracies, as over other obſtacles; it can recogniſe the features of truth, in ſpite of the maſk that conceals or diſfigures them. But how is the man who can devote but a few leiſure moments to inſtruction to do this? how is he to acquire and retain the moſt ſimple truths, if they be diſguiſed by an inaccurate language? The fewer ideas he is able to collect and combine, the more requiſite it is that they be juſt and preciſe. He has no fund of truths ſtored up in his mind, by which to guard himſelf againſt error; nor is his underſtanding ſo ſtrengthened and refined by long exerciſe, that he can catch thoſe feeble rays of light which eſcape under the obſcure and ambiguous dreſs of an imperfect and vicious phraſeology.

It will be impoſſible for men to become enlightened upon the nature and developement of their moral ſentiments, upon the principles of morality, upon the motives for conforming their conduct to thoſe principles, and upon their intereſts, whether relative to their individual or ſocial capacity, without making, at the ſame time, an advancement in moral practice, not leſs real than that of the ſcience itſelf. Is not a miſtaken intereſt the moſt frequent cauſe of actions contrary to the general welfare? Is not the impetuoſity of our paſſions the continual reſult, either of habits to which we addict ourſelves from a falſe calculation, or

of ignorance of the means by which to reſiſt their firſt impulſe, to divert, govern, and direct their action?

Is not the practice of reflecting upon our conduct; of trying it by the touchſtone of reaſon and conſcience; of exerciſing thoſe humane ſentiments which blend our happineſs with that of others, the neceſſary conſequence of the well-directed ſtudy of morality, and of a greater equality in the conditions of the ſocial compact? Will not that conſciouſneſs of his own dignity, appertaining to the man who is free, that ſyſtem of education built upon a more profound knowledge of our moral conſtitution, render common to almoſt every man thoſe principles of a ſtrict and unſullied juſtice, thoſe habitual propenſities of an active and enlightened benevolence, of a delicate and generous ſenſibility, of which nature has planted the ſeeds in our hearts, and which wait only for the genial influence of knowledge and liberty to expand and to fructify? In manner as the mathematical and phyſical ſciences tend to improve the arts that are employed for our moſt ſimple wants, ſo is it not equally in the neceſſary order of nature that the moral and political ſciences ſhould exerciſe a ſimilar influence upon the motives that direct our ſentiments and our actions?

What is the object of the improvement of laws and public inſtitutions, conſequent upon the progreſs of theſe ſciences, but to reconcile, to approximate, to blend and unite into one maſs the common intereſt of each indivi-

dual with the common intereſt of all? What is the end of the ſocial art, but to deſtroy the oppoſition between theſe two apparently jarring ſentiments? And will not the conſtitution and laws of that country beſt accord with the intentions of reaſon and nature where the practice of virtue ſhall be leaſt difficult, and the temptations to deviate from her paths leaſt numerous and leaſt powerful.

What vicious habit can be mentioned, what practice contrary to good faith, what crime even, the origin and firſt cauſe of which may not be traced in the legiſlation, inſtitutions, and prejudices of the country in which we obſerve ſuch habit, ſuch practice, or ſuch crime to be committed?

In ſhort, does not the well-being, the proſperity, reſulting from the progreſs that will be made by the uſeful arts, in conſequence of their being founded upon a ſound theory, reſulting, alſo, from an improved legiſlation, built upon the truths of the political ſciences, naturally diſpoſe men to humanity, to benevolence, and to juſtice? Do not all the obſervations, in fine, which we propoſed to develope in this work prove, that the moral goodneſs of man, the neceſſary conſequence of his organization, is, like all his other faculties, ſuſceptible of an indefinite improvement? and that nature has connected, by a chain which cannot be broken, truth, happineſs, and virtue?

Among thoſe cauſes of human improvement that are of moſt importance to the general welfare, muſt be included, the total annihilation of the prejudices which have eſtabliſhed between the ſexes an inequality of rights, fatal even to the party which it favours. In vain might we ſearch for motives by which to juſtify this principle, in difference of phyſical organization, of intellect, or of moral ſenſibility. It had at firſt no other origin but abuſe of ſtrength, and all the attempts which have ſince been made to ſupport it are idle ſophiſms.

And here we may obſerve, how much the abolition of the uſages authorized by this prejudice, and of the laws which it has dictated, would tend to augment the happineſs of families; to render common the virtues of domeſtic life, the fountain-head of all the others; to favour inſtruction, and, eſpecially, to make it truly general, either becauſe it would be extended to both ſexes with greater equality, or becauſe it cannot become general, even to men, without the concurrence of the mothers of families. Would not this homage, ſo long in paying, to the divinities of equity and good ſenſe, put an end to a too fertile principle of injuſtice, cruelty, and crime, by ſuperſeding the oppoſition hitherto maintained between that natural propenſity, which is, of all others the moſt imperious, and the moſt difficult to ſubdue, and the intereſts of man, or the duties of ſociety? Would it not produce, what has hitherto been a

mere chimera, national manners of a nature mild and pure, formed, not by imperious privations, by hypocritical appearances, by reſerves impoſed by the fear of ſhame or religious terrors, but by habits freely contracted, inſpired by nature and avowed by reaſon ?

The people being more enlightened, and having reſumed the right of diſpoſing for themſelves of their blood and their treaſure, will learn by degrees to regard war as the moſt dreadful of all calamities, the moſt terrible of all crimes. The firſt wars that will be ſuperſeded, will be thoſe into which the uſurpers of ſovereignty have hitherto drawn their ſubjects for the maintenance of rights pretendedly hereditary.

Nations will know, that they cannot become conquerors without loſing their freedom; that perpetual confederations are the only means of maintaining their independance; that their object ſhould be ſecurity, and not power. By degrees commercial prejudices will die away; a falſe mercantile intereſt will loſe the terrible power of imbuing the earth with blood, and of ruining nations under the idea of enriching them. As the people of different countries will at laſt be drawn into cloſer intimacy, by the principles of politics and morality, as each, for its own advantage, will invite foreigners to an equal participation of the benefits which it may have derived either from nature or its own induſtry, all the cauſes which produce, envenom, and perpetuate national animoſities, will one by one diſappear,

and will no more furniſh to warlike infanity either fuel or pretext.

Inſtitutions, better combined than thoſe projects of perpetual peace which have occupied the leiſure and conſoled the heart of certain philoſophers, will accelerate the progreſs of this fraternity of nations; and wars, like aſſaſſinations, will be ranked in the number of thoſe daring atrocities, humiliating and loathſome to nature; and which fix upon the country or the age whoſe annals are ſtained with them, an indelible opprobrium.

In ſpeaking of the fine arts in Greece, in Italy, and in France, we have obſerved, that it is neceſſary to diſtinguiſh, in their productions, what really belongs to the progreſs of the art, and what is due only to the talent of the artiſt. And here let us enquire what progreſs may ſtill be expected, whether, in conſequence of the advancement of philoſophy and the ſciences, or from an additional ſtore of more judicious and profound obſervations relative to the object, the effects and the means of theſe arts themſelves; or laſtly, from the removal of the prejudices that have contracted their ſphere, and that ſtill retain them in the ſhackles of authority, from which the ſciences and philoſophy have at length freed themſelves. Let us aſk, whether, as has frequently been ſuppoſed, theſe means may be conſidered as exhauſted? or, if not exhauſted, whether, becauſe the moſt ſublime and pathetic beauties have been ſeized; the moſt happy ſubjects treated; the moſt ſim-

ple and ſtriking combinations employed ; the moſt prominent and general characters exhibited ; the moſt energetic paſſions, their true expreſſions and genuine features deleniated ; the moſt commanding truths, the moſt brilliant images diſplayed ; that, therefore, the arts are condemned to an eternal and monotonous imitation of their firſt models ?

We ſhall perceive that this opinion is merely a prejudice, derived from the habit which exiſts among men of letters and artiſts of appreciating the merits of men, inſtead of giving themſelves up to the enjoyment to be received from their works. The ſecond-hand pleaſure which ariſes from comparing the productions of different ages and countries, and from contemplating the energy and ſucceſs of the efforts of genius, will perhaps be loſt ; but, in the mean time, the pleaſure ariſing from the productions conſidered in themſelves, and flowing from their abſolute perfection, need not be leſs lively, though the improvement of the author may leſs excite our aſtoniſhment. In proportion as excellent productions ſhall multiply, every ſucceſſive generation of men will direct its attention to thoſe which are the moſt perfect, and the reſt will inſenſibly fall into oblivion ; while the more ſimple and palpable traits, which were ſeized upon by thoſe who firſt entered the field of invention, will not the leſs exiſt for our poſterity, though they ſhall be found only in the lateſt productions.

The pr[illegible]f the ſciences ſecures the progreſs of the art [illegible]n, which again accelerates in its turn that of the ſciences; and this reciprocal influence, the action of which is inceſſantly increaſed, muſt be ranked in the number of the moſt prolific and powerful cauſes of the improvement of the human race. At preſent, a young man, upon finiſhing his ſtudies and quitting our ſchools, may know more of the principles of mathematics than Newton acquired by profound ſtudy, or diſcovered by the force of his genius, and may exerciſe the inſtrument of calculation with a readineſs which at that period was unknown. The ſame obſervation, with certain reſtrictions, may be applied to all the ſciences. In proportion as each ſhall advance, the means of compreſſing, within a ſmaller circle, the proofs of a greater number of truths, and of facilitating their comprehenſion, will equally advance. Thus, notwithſtanding future degrees of progreſs, not only will men of equal genius find themſelves, at the ſame period of life, upon a level with the actual ſtate of ſcience, but, reſpecting every generation, what may be acquired in a given ſpace of time, by the ſame ſtrength of intellect and the ſame degree of attention, will neccſſarily increaſe, and the elementary part of each ſcience, that part which every man may attain, becoming more and more extended, will include, in a manner more complete, the knowledge neceſſary for the direction of every man in

the common occurrences of life, and for the free and independent exercise of his reason.

In the political sciences there is a description of truths, which particularly in free countries (that is, in all countries in certain generations), can only be useful when generally known and avowed. Thus, the influence of these sciences upon the freedom and prosperity of nations, must, in some sort, be measured by the number of those truths that, in consequence of elementary instruction, shall pervade the general mind: and thus, as the growing progress of this elementary instruction is connected with the necessary progress of the sciences, we may expect a melioration in the doctrines of the human race which may be regarded as indefinite, since it can have no other limits than those of the two species of progress on which it depends.

We have still two other means of general application to consider, and which must influence at once both the improvement of the art of instruction and that of the sciences. One is a more extensive and more perfect adoption of what may be called technical methods; the other, the institution of an universal language.

By technical methods I understand, the art of uniting a great number of objects in an arranged and systematic order, by which we may be enabled to perceive at a glance their bearings and connections, seize in an instant their combinations, and form from them the more readily new combinations.

Let us develope the principles, let us examine the utility of this art, as yet in its infancy, and we ſhall find that, when improved and perfected, we might derive from it, either the advantage of poſſeſſing within the narrow compaſs of a picture, what it would be often difficult for volumes to explain to us ſo readily and ſo well; or the means, ſtill more valuable, of preſenting iſolated facts in a diſpoſition and view beſt calculated to give us their general reſults. We ſhall perceive how, by means of a ſmall number of theſe pictures or tables, the uſe of which may be eaſily learned, men who have not been able to appropriate ſuch uſeful details and elementary knowledge as may apply to the purpoſes of common life, may turn to them at the ſhorteſt notice; and how elementary knowledge itſelf, in all thoſe ſciences where this knowledge is founded either upon a regular code of truths or a ſeries of obſervations and experiments, may hereby be facilitated.

An univerſal language is that which expreſſes by ſigns, either the direct objects, or thoſe well-defined collections conſtituted of ſimple and general ideas, which are to be found or may be introduced equally in the underſtandings of all mankind; or laſtly, the general relations of theſe ideas, the operations of the human mind, the operations peculiar to any ſcience, and the mode of proceſs in the arts. Thus, ſuch perſons as ſhall have become maſters of theſe ſigns, the method of combining and the rules for conſtructing them, will

underſtand what is written in this language, and will read it with ſimilar facility in the language of their own country, whatever it may happen to be.

It is apparent, that this language might be employed to explain either the theory of a ſcience or the rules of an art; to give an account of a new experiment or a new obſervation, the acquiſition of a ſcientific truth, the invention of a method, or the diſcovery of a proceſs; and that, like algebra, when obliged to make uſe of new ſigns, thoſe already known would afford the means of aſcertaining their value.

A language like this has not the inconvenience of a ſcientific idiom, different from the vernacular tongue. We have before obſerved, that the uſe of ſuch an idiom neceſſarily divides ſocieties into two extremely unequal claſſes; the one compoſed of men, underſtanding the language, and, therefore, in poſſeſſion of the key to the ſciences; the other of thoſe who, incapable of learning it, find themſelves reduced almoſt to an abſolute impoſſibility of acquiring knowledge. On the contrary, the univerſal language we are ſuppoſing, might be learned, like the language of algebra, with the ſcience itſelf; the ſign might be known at the ſame inſtant with the object, the idea, or the operation which it expreſſes. He who, having attained the elements of a ſcience, ſhould wiſh to proſecute farther his enquiries, would find in books, not only truths that he could underſtand, by means of thoſe ſigns, of which he already knows the

value, but the explanation of the new ſigns of which he has need in order to aſcend to higher truths.

It might be ſhown that the formation of ſuch a language, if confined to the expreſſing of ſimple and preciſe propoſitions, like thoſe which form the ſyſtem of a ſcience, or the practice of an art, would be the reverſe of chimerical; that its execution, even at preſent, would be extremely practicable as to a great number of objects; and that the chief obſtacle that would ſtand in the way of extending it to others, would be the humiliating neceſſity of acknowledging how few precife ideas, and accurately defined notions, underſtood exactly in the ſame ſenſe by every mind, we really poſſeſs.

It might be ſhown that this language, improving every day, acquiring inceſſantly greater extent, would be the means of giving to every object that comes within the reach of human intelligence, a rigour, and preciſion, that would facilitate the knowledge of truth, and render error almoſt impoſſible. Then would the march of every ſcience be as infallible as that of the mathematics, and the propoſitions of every ſyſtem acquire, as far as nature will admit, geometrical demonſtration and certainty.

All the cauſes which contribute to the improvement of the human ſpecies, all the means we have enumerated that inſure its progreſs, muſt, from their very nature, exerciſe an influence always active, and acquire an extent for ever increaſing. The proofs of this have

been exhibited, and from their developement in the work itſelf they will derive additional force: accordingly we may already conclude, that the perfectibility of man is indefinite. Meanwhile we have hitherto conſidered him as poſſeſſing only the ſame natural faculties, as endowed with the ſame organization. How much greater would be the certainty, how much wider the compaſs of our hopes, could we prove that theſe natural faculties themſelves, that this very organization, are alſo ſuſceptible of melioration? And this is the laſt queſtion we ſhall examine.

The organic perfectibility or deterioration of the claſſes of the vegetable, or ſpecies of the animal kingdom, may be regarded as one of the general laws of nature.

This law extends itſelf to the human race; and it cannot be doubted that the progreſs of the ſanative art, that the uſe of more wholeſome food and more comfortable habitations, that a mode of life which ſhall develope the phyſical powers by exerciſe, without at the ſame time impairing them by exceſs; in fine, that the deſtruction of the two moſt active cauſes of deterioration, penury and wretchedneſs on the one hand, and enormous wealth on the other, muſt neceſſarily tend to prolong the common duration of man's exiſtence, and ſecure him a more conſtant health and a more robuſt conſtitution. It is manifeſt that the improvement of the practice of medicine, become more efficacious in con-

ſequence of the progreſs of reaſon and the ſocial order, muſt in the end put a period to transmiſſible or contagious diſorders, as well to thoſe general maladies reſulting from climate, aliments, and the nature of certain occupations. Nor would it be difficult to prove that this hope might be extended to almoſt every other malady, of which it is probable we ſhall hereafter diſcover the moſt remote cauſes. Would it even be abſurd to ſuppoſe this quality of melioration in the human ſpecies as ſuſceptible of an indefinate advancement; to ſuppoſe that a period muſt one day arrive when death will be nothing more than the effect either of extraordinary accidents, or of the ſlow and gradual decay of the vital powers; and that the duration of the middle ſpace, of the interval between the birth of man and this decay, will itſelf have no aſſignable limit? Certainly man will not become immortal; but may not the diſtance between the moment in which he draws his firſt breath, and the common term when, in the courſe of nature, without malady or accident, he finds it impoſſible any longer to exiſt, be neceſſarily protracted? As we are now ſpeaking of a progreſs that is capable of being repreſented with preciſion, by numerical quantities or by lines, we ſhall embrace the opportunity of explaining the two meanings that may be affixed to the word *indefinite*.

In reality, this middle term of life, which in proportion as men advance upon the ocean of futurity, we have ſuppoſed inceſſantly to increaſe, may receive additions

either in conformity to a law by which, though approaching continually an illimitable extent, it could never poſſibly arrive at it; or a law by which, in the immenſity of ages, it may acquire a greater extent than any determinate quantity whatever that may be aſſigned as its limit. In the latter caſe, this duration of life is indefinite in the ſtricteſt ſenſe of the word, ſince there exiſt no bounds on this ſide of which it muſt neceſſarily ſtop. And in the former, it is equally indefinite to us; if we cannot fix the term, it may for ever approach, but can never ſurpaſs; particularly if, knowing only that it can never ſtop, we are ignorant in which of the two ſenſes the term indefinite is applicable to it: and this is preciſely the ſtate of the knowledge we have as yet acquired relative to the perfectibility of the ſpecies.

Thus, in the inſtance we are conſidering, we are bound to believe that the mean duration of human life will for ever increaſe, unleſs its increaſe be prevented by the phyſical revolutions of the ſyſtem; but we cannot tell what is the bound which the duration of human life can never exceed; we cannot even tell, whether there be any circumſtance in the laws of nature which has determined and laid down its limit.

But may not our phyſical faculties, the force, the ſagacity, the acuteneſs of the ſenſes, be numbered among the qualities, the individual improvement of which it will be practicable to tranſmit? An attention to the different breeds of domeſtic animals muſt lead us to adopt

the affirmative of this queſtion, and a direct obſervation of the human ſpecies itſelf will be found to ſtrengthen the opinion.

Laſtly, may we not include in the ſame circle the intellectual and moral faculties? May not our parents, who tranſmit to us the advantages or defects of their conformation, and from whom we receive our features and ſhape, as well as our propenſities to certain phyſical affections, tranſmit to us alſo that part of organization upon which intellect, ſtrength of underſtanding, energy of ſoul or moral ſenſibility depend? Is it not probable that education, by improving theſe qualities, will at the ſame time have an influence upon, will modify and improve this organization itſelf? Analogy, an inveſtigation of the human faculties, and even ſome facts, appear to authoriſe theſe conjectures, and thereby to enlarge the boundary of our hopes.

Such are the queſtions with which we ſhall terminate the laſt diviſion of our work. And how admirably calculated is this view of the human race, emancipated from its chains, releaſed alike from the dominion of chance, as well as from that of the enemies of its progreſs, and advancing with a firm and indeviate ſtep in the paths of truth, to conſole the philoſopher lamenting the errors, the flagrant acts of injuſtice, the crimes with which the earth is ſtill polluted? It is the contemplation of this proſpect that rewards him for all his efforts to aſſiſt the progreſs of reaſon and the eſtabliſhment of liber-

ty. He dares to regard theſe efforts as a part of the eternal chain of the deſtiny of mankind; and in this perſuaſion he finds the true delight of virtue, the pleaſure of having performed a durable ſervice, which no viciſſitude will ever deſtroy in a fatal operation calculated to reſtore the reign of prejudice and ſlavery. This ſentiment is the aſylum into which he retires, and to which the memory of his perſecutors cannot follow him: he unites himſelf in imagination with man reſtored to his rights, delivered from oppreſſion, and proceeding with rapid ſtrides in the path of happineſs; he forgets his own miſfortunes while his thoughts are thus employed; he lives no longer to adverſity, calumny and malice, but becomes the aſſociate of theſe wiſer and more fortunate beings whoſe enviable condition he ſo earneſtly contributed to produce.

*THE END.*

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